

Garden Grove General Plan

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CITY OF GARDEN GROVE

GENERAL PLAN

Adopted October 24, 1995



GARDEN GROVE

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CITY OF GARDEN GROVE

GENERAL PLAN

Adopted October 24, 1995



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CITY OF GARDEN GROVE

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GARDEN GROVE

**CITY OF GARDEN GROVE
GENERAL PLAN
TABLE OF CONTENTS**

- I. Introduction
- II. Land Use Element
- III. Traffic and Infrastructure Element
- IV. Housing Element
- V. Safety Element
- VI. Noise Element
- VII. Open Space/Conservation Element
- VIII. Economic Development Element
- IX. Community Design Element
- X. Parks, Recreation and Cultural Activities Element
- XI. Air Quality Element
- XII. Growth Management Element
- XIII. Glossary



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GARDEN GROVE GENERAL PLAN

◆ INTRODUCTION

1. INTRODUCTION

1.1 REQUIREMENTS OF THE GENERAL PLAN

California law requires each city and county to have an adopted General Plan. The law specifies that each jurisdiction's General Plan address seven issue areas: land use, circulation, housing, conservation, open space, noise and safety. Within the Garden Grove General Plan these issue areas are addressed in the following manner.

- Land use issues include a discussion of current land uses within the City, development trends, and a future land use plan for the City of Garden Grove.
- Transportation routes, including the Garden Grove Freeway (SR-22) in the City, design standards for streets, as well as current and future traffic levels on city streets.
- The Housing Element looks at current and future need for housing units, the capacity in the City for additional units, the types of households that will need some form of assistance or special housing, and ways to conserve existing housing.
- Conservation issues concern natural and man-made resources in the City: plants, animals, and cultural resources.
- Open space issues include a discussion of open space areas, as well as parks and recreation resources.
- Existing and future noise from traffic and other activities are issues discussed in the Noise Element of the General Plan.
- The Safety Element of the General Plan addresses conditions in the City that impact the safety of those who live and work there, such as police, fire, earthquakes, hazardous materials.

Each of these issue areas have goals and policies designed to provide a safe and pleasant environment within the City of Garden Grove into the future.

Garden Grove's General Plan contains five additional chapters in addition to the seven issue areas as required by state law and described above, but also several optional chapters. These optional elements include: Economic Development, Community Design, Air Quality, Parks, Recreation and Cultural Activities, as well as Growth Management.

2. PURPOSE OF THE GENERAL PLAN

The General Plan provides comprehensive planning for the future. A General Plan usually covers a twenty year time period. Estimates are made about future population, household types and employment base, so that plans for land use and facilities can be made to meet changing needs.

Each issue area covers a certain aspect of the city's growth and development. But they are consistent with each other and, taken together, provide a guide for all aspects of planning for the future. This does not mean that the plan never changes until it is updated for the next twenty years. As time passes, certain assumptions made in the General Plan may no longer be valid, due to changing circumstances or new information. State law provides for this by allowing amendments to the General Plan.

3. ORGANIZATION OF THE GENERAL PLAN

The Garden Grove General Plan consists of four separate documents - the Existing Conditions Report, the General Plan document (which addresses those issue areas discussed above), the Environmental Impact Report, and the Implementation Plan.

The Existing Conditions Report serves as a "State of the City" report, providing information on existing conditions. This background information is the basis for issues identification in the General Plan document. The General Plan document contains eleven chapters which address issue areas within the City; within each chapter there are a number of sections. The first section is the introduction which briefly describes the scope of the Chapter. The remaining sections contain the goals and policies that address each concern within that issue area. In some chapters where there are issues specific to a certain neighborhood, the goals and policies are grouped by neighborhood.

The Environmental Impact Report documents how the proposed plan would affect the environment. It also offers a variety of alternatives which citizens can use to compare the plan's effects. Finally, the Implementation Plan provides implementation measures which identify specific strategies for attaining the goals and policies identified in the General Plan document.

4. GENERAL PLAN PHILOSOPHY

Garden Grove's approach to the General Plan emphasizes six philosophical issues:

1. The General Plan must be developed by the same citizens it seeks to serve if it is to be effective. It cannot be imposed artificially on the citizens. The effort leading to this General Plan included start to finish participation beginning with a city-wide survey; a series of General Plan Advisory Committee (GPAC) meetings; public forums; newsletters distributed throughout the community; over fifty confidential interviews; workshops with the Planning Commission and City Council; and a series of conventional public hearings.
2. The Plan must reflect the uniqueness of Garden Grove. Throughout its length, the General Plan has been written to recognize and reinforce the same characteristics which make Garden Grove unique.
3. The Plan must be written in an easily understandable fashion. This means simply that no buzzwords have been used, technical terms have been defined in a glossary; and assertive policies have been tied to a specific target or goal.
4. The Plan must be technically competent. Upon completion, the General Plan will not only meet but far exceed the minimum requirements of California State Law. In addition to the minimum requirements, the Plan includes chapters addressing Economic Development, Community Design, Air Quality, Parks, Recreation and Cultural Activities, as well as Growth Management.
5. The Plan must also recognize the strength and value of neighborhoods. Wherever possible, the text is divided into both city-wide and neighborhood policies. This organization reflects the City's commitment to the validity of neighborhood-level planning.

5. CITIZEN PARTICIPATION

The Citizen Participation Program for the Garden Grove General Plan was organized into five separate phases. Every effort was made to ensure that all residents were given the opportunity to participate in the General Plan Update Program. Each phase of the program is described below:

- A city-wide survey was conducted at the onset of the Update Program.
- Two Community Forums open to the public.
- A General Plan Advisory Committee (GPAC) was established, several meetings were held with the GPAC to determine direction and strategy for the General Plan.
- Three newsletters distributed throughout the community.

- Interviews were conducted with key department heads, Planning Commissioners, City Council members, and stakeholders in the community.
- Three public hearings before the Planning Commission.
- Two public hearings before the City Council.

GARDEN GROVE GENERAL PLAN

◆ LAND USE

The City strives for a well-balanced land use pattern that accommodates existing and future needs for housing, commercial, and industrial land, while providing adequate recreation, community services and other amenities to City residents.

*The Land Use Element
provides the framework for
the entire General Plan*

1. INTRODUCTION

The Land Use Element is often seen as the framework element for the General Plan because it correlates goals and policies from all the other elements into a single document, setting forth the patterns of development activity and land use that will support and enhance the character of the City. Although, in the eyes of the law, all General Plan elements are of equal importance, the Land Use Element is the Element most frequently used and referred to, representing the entire General Plan within its scope.

2. AUTHORITY FOR THE ELEMENT

The State of California Government Code Section 65302(a) requires that a General Plan include:

"... a land use element which designates the proposed general distribution and general location and extent of the uses of the land for housing, business, industry, open space including agriculture, natural resources, recreation, and enjoyment of scenic beauty, education, public buildings and grounds, solid and liquid waste disposal facilities and other categories of public and private uses of land. The land use element shall include a statement of the standards of population density and building intensity recommended for the various districts and other territory covered by the plan. The land use element shall identify areas covered by the plan which are subject to flooding and shall be reviewed annually with respect to those areas."

The Land Use Element has the broadest scope of any of the State required components of the General Plan. In addition to the State's requirements set forth in the Government Code, above, it has also been legally established that, while the location of a particular land use may be expressed in general terms, a property owner must be able to identify the General Plan designation for his/her parcel from the land use diagram contained in the Land Use Element.

Among the important implementation mechanisms for the Land Use Element are Specific Plans and the Zoning Ordinance. The California Government Code requires that a city's zoning ordinance and map be consistent with its General Plan Land Use Element and map, and that all provisions of specific plans adopted by a city must be consistent with the General Plan they implement.

3. RELATIONSHIP TO OTHER ELEMENTS

As the framework element of the General Plan, the Land Use Element relates directly to all goals and policies of the other elements.

- The Land Use Element addresses circulation by setting out, in its Map and policies, the location and size of all roadways in the City, coordinated with the land uses the roads will serve. It also notes the planned capacities of all other infrastructure systems which will be necessary to protect the health and welfare of the City's citizens.
- The location, type and density of residential units is a key component of the Land Use Element, constraining and supporting the policies of the Housing Element.
- The mandates of the Safety Element are reflected in the designation and location of land uses, the permitted activities within designated areas, and the patterns of land use which support defensible space, the City's contingency plan, and fire and other hazard mitigation.
- Open spaces are protected and preserved by the land use designations which the Land Use Element accords to these areas. The City's resources are conserved through policies for the wise use of land, water, energy and historic legacies, all supported within the Land Use Element.
- The provisions of the Noise Element are reflected in the placement of land uses sensitive to noise so as to protect them from those uses which can be expected to generate noise.
- Air Quality is improved by land use patterns which minimize vehicle travel internal to the City, and which isolate and control activities which affect air quality.
- The character and use of parks, recreational facilities and cultural activities are affected by the convenience of their locations in proximity to the client groups they are intended to serve. These issues are addressed in the Land Use Element.
- One important aspect of land is the monetary value it commands and the revenue that it generates, both for its owners and for the City. These are significant land use considerations which are reflected in the Land Use Element in relation to the Economic Development Element.
- The Land Use Element relates closely to the Community Design Element, laying out the patterns of land uses whose appearance is addressed in Community Design.
- The Growth Management Element reflects the Land Use Element's policies for the locations of development and redevelopment, ensuring the timeliness of improvements to the infrastructure needed for areas where growth and change are planned.

*Citizens' concerns are
incorporated into the
General Plan*

4. SUMMARY OF FINDINGS

4.1 LAND USE ISSUES

Prior to beginning work on the Garden Grove General Plan Update, an extensive effort was made to identify citizens' concerns for the future of their City. A survey questionnaire was mailed to a large sample of City residents and employers, and responses received were analyzed and interpreted. (Please refer to Analysis of the Community Survey for the City of Garden Grove, June 1994.) More than fifty confidential interviews with citizens were conducted in order to learn the issues important to the City's leadership. Open forums, to which all citizens were invited, were held to gather citizen opinions on planning for the City's future. Finally, a General Plan Advisory Committee, twenty-five citizens appointed by the City Council and the Mayor, devoted many hours to reviewing and prioritizing the issues, problems and opportunities present in the City. All of these concerns are reflected in the goals and policies of the General Plan Elements. Concerns which were voiced by the community through the public participation process, and which are pertinent to the Land Use Element, are summarized below:

- The appearance of the City is one of the most important concerns of citizens. Among the issues identified which relate to aesthetics are: graffiti, signage, code enforcement, neighborhood maintenance, the appearance of City streetscapes, and the need for a City-wide urban design plan. Improving the City's image and enhancing its attraction is a prime factor in planning land use.
- Preserving the stability of residential neighborhoods in Garden Grove is a significant issue to residents. Garden Grove has traditionally been a family-centered community, so that the quality of its residential areas is of signal importance.
- The densities of population residing in Garden Grove neighborhoods is seen as a problem to many. Regional growth factors could cause the City to change from its traditional low density single-family, suburban form of housing to a more urban, higher density apartment form. The City's troublesome experiences with several of its apartment communities has eroded confidence and support for further apartment development. But without higher density residential structures, the over-crowding of single-family houses, which is now a problem in many neighborhoods, could continue and grow worse. Condominiums, townhomes, mixed use housing and innovative forms for multiple unit housing may help to resolve this issue.

- Garden Grove is bounded and traversed by a great many heavily travelled arterial highways, miles of which are bordered by strip commercial development. Neither the small lot, narrow strip form of this development, nor the excessive acreage devoted to it, can attract the number of viable businesses it would take to fill it. The result of this oversupply of strip commercial is underutilization, vacancies, and inevitably, deferred maintenance and deterioration. Alternative patterns and uses for this kind of commercial land must be addressed.
- Garden Grove adopted Specific Plans for three key areas of the City, covering more than a square mile within the City. As is legally required, these Specific Plans depicted existing and future uses of the land with detail and precision. Although the Specific Plans served the City well, particularly in the Brookhurst Street/ Chapman Avenue area, they must now be retired to make way for more current and relevant specific plans or urban design plans for future areas of concern in the City. New plans will then be functionally interrelated with the City as a whole within the context of the adopted General Plan Land Use Element.

Opportunities

A number of conditions present in the City can be cited as promising opportunities for shaping the City's future and helping to realize its goals.

- Citizens' concern for the appearance of their City lends support to plans for projects to improve the City. Recent recommendations designed to revitalize Harbor Boulevard were received with widespread enthusiasm, and studies for the improvement of Garden Grove Boulevard have met with similar approval in the past. The excitement generated by these plans offers a major opportunity to bring their vision to reality.
- There is a very large area of vacant land located at the heart of the City, near the intersections of Euclid Street, Garden Grove Boulevard and Century Boulevard. The character of the development which will occupy this land will do much to determine the City's future image. It is within the City's redevelopment authority to regulate the development of this land so that new projects will concentrate activities within the Community Center, improve the Center's appearance, and enhance the image of the entire City.
- The Orange County Transit Authority (OCTA) owns a broad corridor of land which transects the City, known as the OCTA right-of-way (R.O.W.). Except for two commercial parking lot extensions, the OCTA land has stood vacant for many years, and promises to remain so for the foreseeable future. Right-of-way use for recreation, landscaped park lands, mobile home parks, and the like could benefit

Citizen enthusiasm for improving the Harbor and Garden Grove Boulevard Corridors

Vacant land in the heart of the City

The OCTA right-of-way

adjacent communities, providing convenience and amenities while mitigating the criminal activity now attracted to the deserted and isolated band of property.

Tourism offers tremendous opportunities to City

- Disneyland, a major tourist attraction in Anaheim, lies just north of the City of Garden Grove. Plans for the expansion of Disneyland, and for the improvement of adjoining areas in Anaheim, offer a major opportunity to Garden Grove. The planned relocation of Disneyland's main entrance to West Street, adjoining Garden Grove, and the increased tourist traffic traversing Harbor Boulevard in Garden Grove, can bring the City significant financial benefits. Capturing tourist patronage for shelter, shops and services must be a strong element in planning for North Garden Grove.

Changing demographics

- The demographics of the City's population have been changing rapidly in recent decades. In-migration has occurred from countries throughout the world, so that Garden Grove's population now reflects a rich diversity of cultures. Celebrating these ethnic changes through multi-cultural centers, international business centers, and specialized shopping malls can unify the community while stimulating its economy.

Cultural arts

- Garden Grove has traditionally been a strong supporter of the performing arts, offering symphonic concerts and classical theatre. Although some of these performances have fallen victim to economic recession and failing attendance, preservation of their sites will ensure future restoration and revitalization of these cultural amenities.

Garden Grove Freeway

- State Route 22, known to everyone as the Garden Grove Freeway, was built on developed land so that many residential properties adjacent to the new Freeway were reduced in value. A transition from residential land use to those land uses which would benefit from Freeway accessibility and visibility was not immediately possible. The Trask Avenue widening exemplifies the kind of freeway-oriented land use transition that can mitigate the negative impacts of the Freeway while improving the economy of the City.

Special interest areas with unique characteristics

- Although Garden Grove is not old as an incorporated City, it has a long history as a community. Some of this history is reflected in districts such as Main Street and 88 Acres. Preserving and enhancing these, and other land use legacies from the Community's past adds a vital dimension to the texture and character of the City.

Agricultural uses are limited

Garden Grove is famous for its strawberry fields, its strawberry production and its Strawberry Festival. Almost all residents treasure this agricultural legacy from the City's rural past, and strongly support its continuation. Maintaining agriculture in the City is not, however economically viable. Only at great municipal expense, with such costly measures as the purchase of open space

Constraints

Parklands should be expanded

Adult Bookstores

easements, development rights, or fee simple acquisition, could the City ensure the continuation of agricultural production on its urbanizing land.

According to its own adopted standard of necessary parkland acreage, Garden Grove does not have sufficient park area to serve its population. Acquiring additional space will be difficult. Although there are some economically feasible measures to mitigate the short fall of land for parks and recreation in the City, fully meeting the City's park space standard must be a long range goal to be implemented incrementally over many years ahead.

Adult bookstores located in Garden Grove consistently rank at, or near the top, of all residents' complaints about their City. While citizens might enthusiastically support the immediate eviction of adult businesses from their City, there are strong legal constraints on the powers of municipalities in dealing with such land uses. Limited locations, required separations of adult businesses from sensitive land uses, and dispersion of adult land uses by prohibiting their concentration, are all legal measures which the City can implement. But the total prohibition of adult uses, and their eradication from the City is not within the legal authority granted to municipal government.

4.2 EXISTING LAND USE DESIGNATIONS

The City of Garden Grove Zoning Map displays the zoning classifications which implement the land uses authorized in the City's General Plan, including those within its existing specific plan areas. The General Plan land use designations indicate the nature, density or intensity of development permitted for each land use category. The location and extent of land uses for each designation is shown on the 1973 Garden Grove General Plan Map, shown in Appendix A as Exhibit 1, *Alternative A - Existing Plan*.

Residential Land Uses

The 1973 Garden Grove General Plan Land Use Element "classifies the residential areas of the City into low, medium and high density categories in accordance with desirable standards for development of the land. The Land Use Element employs a net density measurement which is the ratio of dwelling units to the land actually occupied for dwelling purposes (i.e. not including streets)."¹

A description of each residential land use designation and its equivalent zoning categories follows.

¹ All quotations in this section are taken from the "Garden Grove Municipal Code - Land Use Volume," as amended January 21, 1992.

Low Density Residential (LDR)

The LDR includes all residential areas composed of "single-family and two-family areas equivalent to the zone classifications R-1 and the lower range of R-2, mobile home parks, and townhouses with 10 units or less per net acre." The General Plan Land Use Map designates all single-family residential development, including all permitted R-1 and R-2 densities, as LDR.

Medium Density Residential (MDR)

The MDR designation may include many types of multiple-family structures such as duplexes, triplexes, other attached units, and apartments. Densities in the MDR designated areas can range from 11 dwelling units per net acre to a maximum of 24 units. The zoning categories which offer the same densities as the MDR land use designation are R-3 and the upper ranges of R-2.

High Density Residential (HDR)

The HDR, designates residential land use with densities ranging from 25 to 48 dwelling units per acre. At the time of adoption of the existing Land Use Element there were three housing developments which were built within this range of density, averaging 32.6 units per net acre. These high density projects were implemented through the R-4 and R-5 zone classifications. R-4 and R-5 zone classifications were later removed from the Zoning Ordinance and projects approved under those classifications are now designated as non-conforming uses in R-3 zones.

Table 1, *Existing Land Use and Zoning Equivalence: Residential*, displays residential zoning categories equivalent to the General Plan residential land use designations. The zoning categories are found in the Garden Grove Zoning Ordinance which governs all development in the City, including development within the Specific Plan areas.

Housing density, shown in the third column of Table 1, displays the maximum number of homes permitted per net acre in each of the zones. As noted above, the density is figured only on land available for housing lots; no allowance is made for land devoted to streets and other public and quasi-public facilities to be found in residential neighborhoods. The total net acres to be found in each zone was established by computer mapping.

Population densities shown in the fifth column of Table 1 are based on Garden Grove's average household size of 3.247 persons per household, as estimated by the California Department of Finance in 1992. This average household size is multiplied by the permitted number of homes in a zoned acre, then rounded to the nearest whole number to indicate the maximum population per acre in each of the land use designations or zoning categories.

Build-out, shown in the sixth column, is a measure of the capacity of each zone, i.e. the number of homes that there would be in each zone if there were no undeveloped residential lots. This figure is then multiplied by the average household size, 3.247, to estimate the population of the City if all residential areas were fully developed as they are currently zoned, there were no vacant

TABLE 1
EXISTING LAND USE AND ZONING EQUIVALENCE: RESIDENTIAL

General Plan	Zoning Ordinance	Housing Density	Net Acres	Maximum Population/Acre	Maximum Population Build-Out
LDR	R-1	0 - 6	4,607	19	87,533
MDR	R-2	7 - 10	85	32	2,720
	R-3	11 - 24	928	78	72,384
HDR ²	None	0	0	0	0
PUD	PUD(LDR)	0 - 10	52	32	1,664
	PUD(MDR)	11 - 24	150	78	12,324
SPECIFIC PLANS³					
Community Center					
CCR	R-5	24 - 36	26	84	2,184
CR	R-5	24 - 36	1	84	84
PR	R-5	11 - 24	147	78	11,466
Harbor Corridor					
TN	R-3	11 - 24	13	78	1,014
TW	R-3	11 - 24	8	78	624
Total			6,017		191,997

Source: Garden Grove General Plan Land Use Element, 1973 and Garden Grove Municipal Code -Land Use Volume, as amended January 21, 1992.

² High density residential was a land use designation in the 1973 Land Use Element, but the Zoning Ordinance was later amended to remove the R-4 and R-5 zoning classifications which implemented the high density designation.

³ A third Specific Plan area, Brookhurst/Chapman, includes no residential land uses.

dwelling units in the City, and each zone was developed to the permitted upper limit of density.

It should be noted that "build-out" estimates are useful only for comparative purposes, when comparing the effects of alternative plans. Build-out estimates do not represent future reality. It is highly unlikely that the City would grow to the build-out population without any adjustment to its development regulations.

Commercial Land Uses

Commercial land uses encompass those retail and service establishments which are planned to serve neighborhood, city-wide or regional clientele. In general, the size of the commercial areas, and the range of goods and services they offer, are scaled to the clientele they are planned for, with neighborhood commercial the smallest and most limited of the commercial categories. This scale is reflected in the original commercial zoning classifications of C-1, C-2 and C-M (Commercial-Manufacturing). Subsequent to the 1973 adoption of the Land Use Element, the City's zoning code was revised to eliminate the C-M classification, replacing it with the revised standards of the current C-3 zone. The revision of the Zoning Code altered the standards of the C-M zone, but the hierarchy of intensity of commercial use was preserved.

Table 2, *Existing Land Use and Zoning Equivalence: Commercial*, displays data for the three commercial land use designations and the zoning which implements them. Commercial uses in the three Specific Plan areas in the City are also included, the Table includes the zoning classifications used in each Specific Plan.

Three commercial classifications are necessary to reflect a gradation in the intensity of uses to be permitted in each of the zones or designations. Intensity of use refers to the expected daytime population of the zone, the numbers of vehicle trips it is expected to generate or, in general, just how busy an activity center will be allowed within the zone.

Intensity of use is difficult to measure. The generally accepted measure to determine intensity is the floor-to-area ratio (FAR). FAR relates the floor space within the building to the size of the lot on which it is to be built. Thus, on an 8,000 square foot lot with a FAR of 1:1 (1 square foot of floor space related to 1 square foot of lot space), an 8,000 square foot one-story building could be built to cover the entire lot. With the same FAR of 1:1, a two-story building containing 8,000 square feet, 4,000 square feet on each floor, would be allowed to cover half the 8,000 square feet, or a three-story building containing 8,000 square feet would be allowed to cover one third of the lot, and so on until the building height limit established for the zone is reached. This

TABLE 2
EXISTING LAND USE AND ZONING EQUIVALENCE: COMMERCIAL

General Plan	Zoning Ordinance	FAR	Net Acres	Existing Floor Area	Build-Out Floor Area
Neighborhood Commercial	C-1	0.50 : 1	178	1,921,260	3,898,620
Community Commercial	C-2	0.55 : 1	238	2,311,900	5,725,962
Heavy Commercial	C-3	0.56 : 1	35	105,000	853,776
Planned Unit Development	PUD(C)	Base ⁴	48	155,000	1,149,984
SPECIFIC PLANS					
Brookhurst/Chapman					
	BCC	0.50 : 1	83	975,300	1,807,740
Community Center					
	CC, DC, MX	0.50 : 1	97	698,678	2,112,660
Harbor Corridor					
	DC, SD, TC	0.50 : 1	125	784,400	2,722,500
Total			804	6,951,538	18,271,242

Source: Garden Grove Municipal Code -Land Use Volume, as amended January 21, 1992; Garden Grove Specific Plans, General Plan Update land use inventory.

⁴ PUD areas may take on the zoning in place on the land for which they are planned; alternatively, new zoning may be approved as part of the individual PUD ordinance adopted for each PUD site in the City.

example illustrates the concept of FAR; in practice, FARs are further reduced with set-back requirements, parking requirements and other considerations.

Because Garden Grove's Zoning Ordinance does not incorporate a measure of intensity of use, FARs have been estimated based on the development standards set forth in each of the zones. These FARs are only general estimates; in each of the zones there are variations in development standards depending on whether the lot in question is a corner lot, an interior lot, or whether it adjoins residentially-zoned land. Variations are also seen in parking requirements based on the nature of the commercial or industrial buildings' use. Unless otherwise stated, the FAR estimates made herein are for buildings built to the maximum permitted height on interior lots, with required parking provided on the surface of the lot. Exceptions will be noted.

The fourth column, Net Acres, was calibrated by the computer mapping component of the land use inventory, performed as part of the General Plan Update.

The fifth column of data in Table 2, Existing Floor Area, is an estimate of floor space included in all buildings in commercial use throughout the City. These areas were estimated by scaling aerial photographs, by field inspection, and by telephoned inquiries to owners and/or managers.

The final column, Build-out Floor Area, is obtained by multiplying the net acres in each zone by the FAR for that zone. As with residential zones, build-out estimates are useful only to compare the effects of alternative plans, they do not reflect probable future reality.

The commercial land use designation of the existing General Plan is implemented by three zoning categories:

The C-1 zone "... is intended to provide business at the neighborhood level in small-scale convenience shopping facilities. The shopping facilities are encouraged to be integrated into the surrounding area to maintain the image of neighborhood and to ensure operational compatibility," according to the City's Zoning Ordinance.

With required parking provided on the lot at surface level, the maximum floor-to-area ratio (FAR) in the Neighborhood Commercial Zone is 0.50. This FAR applies to retail trade. Other specific uses, such as restaurants or banks, have special parking requirements that will cause the FAR to vary.

The C-2 zone "...is intended to provide a broad range of commercial retail and service needs for the residents of the City and surrounding communities. The commercial facilities associated with this zone need to be compatible with adjoining uses and public improvements. Heavy commercial uses are to be restricted or prohibited."

Neighborhood Commercial (C-1)

Community Commercial (C-2)

Heavy Commercial (C-3)

With the required parking provided at surface level on the lot, the FAR in C-2 is 0.55. This FAR applies to retail trade; as in Neighborhood Commercial, special uses may have more or less intensive FARs.

Heavy Commercial land uses are now regulated by the zoning category C-3, which replaced the original Commercial Manufacturing (C-M) classification in the Zoning Ordinance. The Ordinance states that the "... C-3 zone is intended to provide for a wide range of commercial uses, primarily more intensive services and uses of wholesale/retail combinations, normally incompatible with other commercial activities or residential uses."

When required parking is provided on the lot at surface level, the permitted FAR in C-3 is 0.56. As the lot size, and the structures on it increase in size, the FAR can become higher, or more intensive, as parking requirements are reduced for buildings containing more than 40,000 square feet of floor space.

Office Professional (OP)

Office Professional

Office Professional (O-P) is a General Plan land use designation as well as a zoning classification in the current Zoning Ordinance.

The O-P Zone "... is intended to provide for business and professional offices, services and associated business and retail activities, in an attractive environment compatible with residential areas."

The existing O-P Zone allows an FAR of 0.40 with required parking spaces provided on the surface of the lot. This FAR does not cover medical offices, which require more parking spaces, resulting in lower, less intensive FARs for this use.

Table 3, *Existing Land Use and Zoning Equivalence: Office Professional*, displays data for current office professional land use. FARs, net acres, existing floor areas and build-out floor areas were all prepared with the same processes used in preparing Table 2. As with previous land use and zoning equivalence tables, it must be noted that the build-out data is useful only for comparative purposes.

Industrial Land Uses

The Industrial (I) General Plan land use designation is intended for "... manufacturing, repairing, testing, processing, warehousing, wholesaling, research or treatment of products..." It is implemented by two industrial zoning categories, Limited Industrial (M-1) and Industrial Park (M-P).

TABLE 3
EXISTING LAND USE AND ZONING EQUIVALENCE: OFFICE PROFESSIONAL

General Plan	Zoning Ordinance	FAR	Net Acres	Existing Floor Area	Build-Out Floor Area
Office Professional	O-P	0.40 : 1	36	259,600	627,264
Planned Unit Development	PUD(OP)	Base ⁵	10	188,000	174,240
SPECIFIC PLANS					
Brookhurst/Chapman					
	OF	0.40 : 1	3	0	52,272
Community Center					
	CCO, OP	0.40 : 1	39	623,800	679,536
Harbor Corridor					
	OP	0.40 : 1	38	476,000	679,536
Total			126	1,547,400	2,212,848

Source: Garden Grove Municipal Code - Land Use Volume, as amended January 21, 1992; Garden Grove Specific Plans, General Plan Update land use inventory.

⁵ PUD areas may take on the same zoning requirements in place on the land for which they are planned; alternatively, new zoning may be approved as part of the PUD ordinance adopted for each PUD area in the City.

Limited Industrial (M-1)

The Zoning Ordinance states that the "... M-1 zone is intended to provide for small and medium size industrial uses that are generally compatible with one another and are not generally adverse to adjacent residential and commercial uses, provided proper screening measures are utilized."

The M-1 zone permits an FAR of 1.0 for smaller buildings of less than 20,000 square feet; larger buildings have proportionately fewer required parking spaces so that the FAR will be slightly higher, or more intensive.

Industrial Park (M-P)

The M-P zone "... is intended to provide for modern industrial, research and administrative facilities by requiring comprehensive planning of large parcels of land and the coordination of building design and locations." Much of the Central Industrial Area has been developed through Planned Unit Development review and approval, consistent with the M-P zoning category. FARs in PUDs can vary according to the approvals granted for each site design, but the base M-P zone which influences PUDs approved within it, has the same development standards as the M-1 zone, so that its FAR is also 1.0.

Table 4, *Existing Land Use and Zoning Equivalence: Industrial*, displays land use and zoning data for industrial land uses in Garden Grove in the same format, and derived from the same procedures as the previous zoning equivalence tables. As with the previous tables, build-out data are not an accurate reflection of future reality. This is particularly true of industrial uses; modern manufacturing is best served by one-story buildings, so that the more intensive FARs available from multi-story buildings are rarely used in manufacturing facilities.

Public and Quasi-Public

As stated in the 1973 Garden Grove Land Use Element, Public and Quasi-Public land uses "... are all publicly owned facilities such as City, County, special district, State and Federal buildings and facilities, libraries, flood control channels, and water reservoir sites, and such quasi-public uses as public utility facilities. A separate designation for public and private Open Space is also included in the Public Quasi-Public designation. Shown as open space are City parks, public schools, golf courses, and other public and private open space land."

Open Space (OS)

In the Zoning Ordinance, the Open Space (OS) designation is intended to protect the existing open, undeveloped land in the City. When the City Zoning Ordinance allows residential use on land classified as open space, it is permitted only for one single-family residence on a lot whose minimum size is one acre. Agriculture and a limited number of public and semi-public facilities are also permitted in areas designated as Open Space (OS).

TABLE 4
EXISTING LAND USE AND ZONING EQUIVALENCE: INDUSTRIAL

General Plan	Zoning Ordinance	FAR	Net Acres	Existing Floor Area	Build-Out Floor Area
Industrial	M-1	1 : 1	161	4,041,800	7,013,160
Industrial	M-P	1 : 1	158	2,679,000	6,882,480
PUD	PUD(I)	Base ⁶	499	10,707,000	21,823,560
SPECIFIC PLANS					
Community Center					
BC	M-P	1 : 1	32	321,800	1,393,920
Total			850	17,749,600	37,113,120

Source: Garden Grove Municipal Code - Land Use Volume, as amended January 21, 1992; Garden Grove Community Center Specific Plan, General Plan Update land use inventory.

⁶ PUD zoned areas may take on the same zoning regulations in place on the land for which they are planned; alternatively, new zoning may be approved as part of the PUD ordinance adopted for each PUD area in the City.

There are now 881 acres in Garden Grove which bear the OS zoning classification. This constitutes 7% of the entire area of the City. Some of this area does not appear to be literally "open," because it includes public buildings such as schools or libraries; but other land, such as the Southern California Edison easement, are now open land.

Planned Unit Development

The General Plan also denotes Planned Unit Development (PUD) as an overlay land use designation for "unique types of development." The regulations for PUDs are intended to provide for a diversity of uses, land use relationships, and open spaces in an innovative land plan and design while ensuring compliance with the provisions of the municipal code.

PUDs are governed by the zoning regulations in force for the base zone on which the project is located, varied by regulations that are contained within the ordinance which ultimately adopts the PUD. PUDs are only encouraged in the development of large sites; a minimum of three acres for residential PUDs, and five acres for commercial, industrial and mixed use projects.

PUDs have been widely used throughout the City, particularly in the Central Industrial Area. Each of the previous land use and zoning equivalence tables displays data for residential, commercial, office professional and industrial PUDs.

Specific Plans

In addition to the General Plan land use designations previously discussed and implemented by the Zoning Ordinance, there were three specific plan areas in the City: Harbor Corridor, Brookhurst/Chapman and the Community Center Specific Plans. These three areas, totalling 644 acres together, are governed by detailed land use regulations, including zoning classifications unique to each Specific Plan area. A full description of these Plans is given in the City of Garden Grove Existing Conditions Report. Information on the land uses within each of the three Specific Plan areas is provided in the previous tables.

5. PLANNED LAND USE FOR THE GENERAL PLAN

In updating a General Plan it is necessary to consider alternative means for reaching the City's goals. Four alternatives were considered in the adoption of the Garden Grove General Plan. The existing Garden Grove General Plan, with most elements adopted between 1973 and 1978, was Alternative A, the first alternative to be considered. Alternative A was, in essence, the continuation of the existing General Plan without revision.

Planned Unit Development (PUD)

*Stable single-family
residential neighborhoods
remain unchanged*

Alternative B was the Proposed Plan which would update the existing Plan and replace it as Garden Grove's General Plan.

Alternative C, the third alternative, was Modified Proposed Plan 1. Alternative C proposed some changes to the basic Plan proposed in Alternative B.

Alternative D, the fourth and final alternative, was titled Modified Proposed Plan 2. Alternative D offered a set of changes to the Proposed Plan which were different from those in Alternative C.

These alternative plans were not mutually exclusive. Each of these alternatives offered ideas, or features, which were preferred to the others. Ultimately, Alternative B, the Proposed Plan was adopted, with minor modifications; the adopted Land Use Plan is discussed below. Appendix A provides a summary of the other three alternatives which were considered.

5.1 ADOPTED LAND USE PLAN

Residential Land Uses

Residential land use in Alternative B, the adopted Land Use Plan, has not affected stable single-family neighborhoods, all of which remain unchanged in their land use designations. Some additional land has been designated for low density residential, usually in areas where single-family neighborhoods have already been established. The areas of Low Medium Density Residential (LMR) have been increased, in part to accommodate the City's mobile home parks, as well as to allow the development of new conventionally built housing at this density. Land for Medium Density Residential (MDR) has also been increased. There are three areas in the City designated for Medium High Density residential use, these are located between Haster and Lewis Streets.

A review of Table 5, *Land Use Plan, Land Use and Zoning Equivalence: Residential*, shows that: one, residential land is planned to be the dominant land use in the City of Garden Grove, and two, that low density single-family neighborhoods are planned as the dominant form of residential land use. It should be noted that the projected population in Table 5 reflects the maximum population anticipated under build-out of the General Plan, assuming all existing developed areas in the City were to intensify.

Exhibit 1, *Land Use Plan*, displays the location and extent of all designated land uses planned for the City. Amended zoning classifications to implement planned land use designations are listed and explained below.

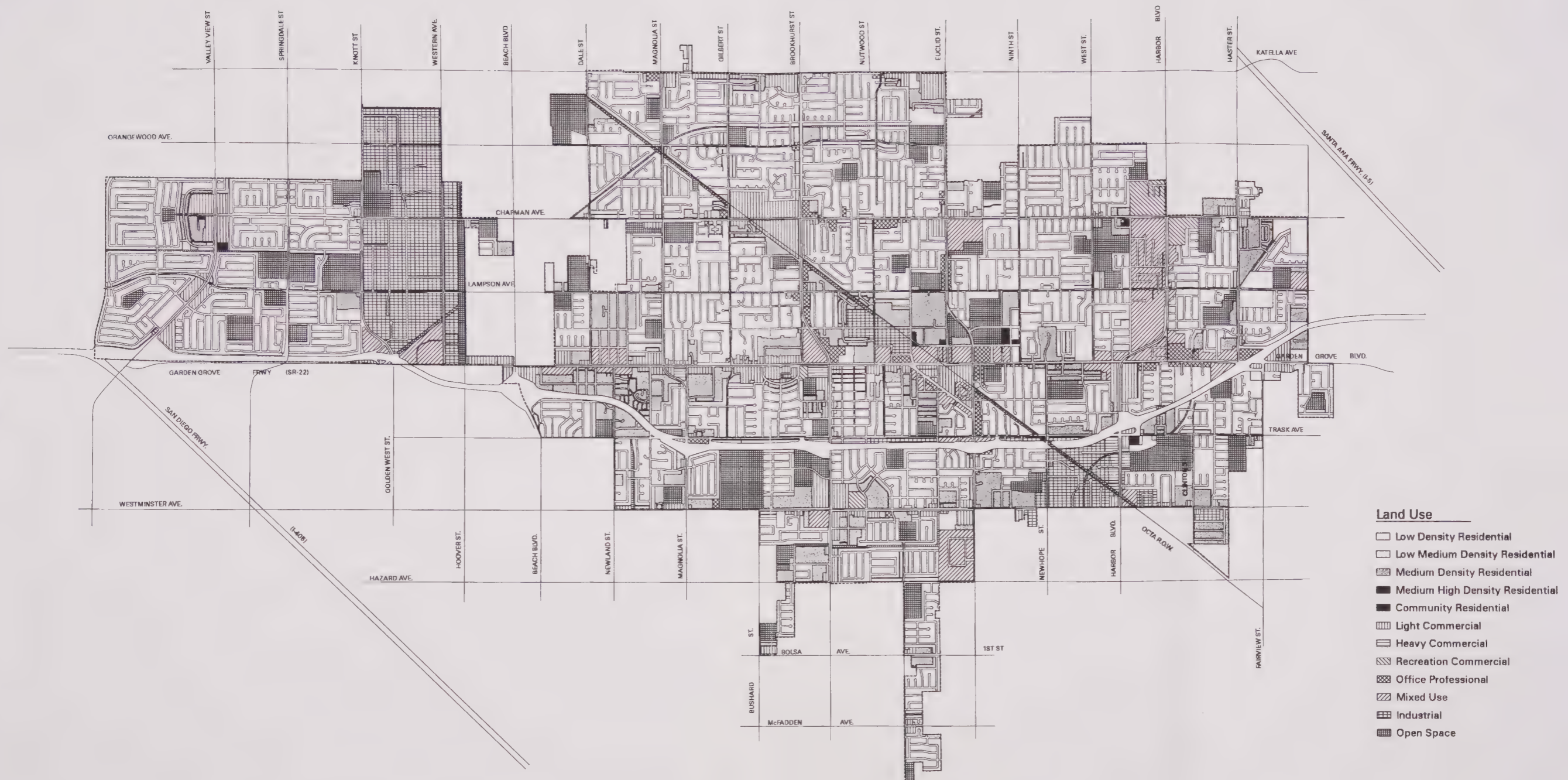
TABLE 5
LAND USE PLAN
LAND USE AND ZONING EQUIVALENCE: RESIDENTIAL

General Plan	Zoning Ordinance	Housing Density	Net Acres	Maximum Population/Acre	Maximum Population Build-Out
LDR	R-1 R-1S	1.0 - 8.0 8.1 - 11.0	4,538	36	163,368
LMR	R-2S R-2M	11.1 - 15.0 11.1 - 21.0	295	68	20,060
MDR	R-3	21.1 - 32.0	974	104	101,296
MHR	R-4	32.1 - 42.0	0	0	0
CR	C-R	42.1 - 60.0	16	120 ⁷	1,920
MU	M-U ⁸				2,870
Total			5,823		289,514⁹

⁷ The C-R zone is intended for seniors, convalescent homes and the like so that the average family size of 3.247 is not applied in this application of estimated population.

⁸ Mixed Use (M-U) can incorporate housing with office, commercial, or light industrial uses. The acreage allotted for residential use in Mixed Use, and the allowed densities of residential units will be determined on a site-by-site basis.

⁹ This number assumes that all residential areas in the City would be redeveloped; for purposes of this General Plan, it is assumed that most existing residential neighborhoods will not be redeveloped, rather preserved and enhanced.



Land Use

- Low Density Residential
- Low Medium Density Residential
- Medium Density Residential
- Medium High Density Residential
- Community Residential
- Light Commercial
- Heavy Commercial
- Recreation Commercial
- Office Professional
- Mixed Use
- Industrial
- Open Space



Low Density Residential (LDR)

Low Medium Density Residential (LMR)

Medium Density Residential (MDR)

Medium High Density Residential (MHR)

Residential land use is classified into five categories which begin with low density single-family residential and then continue with residential areas of increasing density. Residential land use density is figured on the basis of net acres, i.e. only land occupied for dwelling purposes is measured, streets and other public facilities are not included.

A description of each residential land use designation and its equivalent zoning category follows.

LDR includes all single-family residential areas. It will be implemented by two zones, R-1 and R-1S.

The R-1, Single-family Residential, zone may range from 1 to 8 dwelling units per acre. Actual densities are to be indicated on the zoning map as R-1.2, two dwelling units per acre, R-1.3, three dwelling units per acre, up to R-1.8, eight dwelling units per acre.

The R-1S, Limited Single-family, zone will allow densities of 8.1 to 11 dwelling units per acre. It is intended for single-family detached dwellings in small lot subdivisions. Reduced front, rear and side yard setbacks will be allowed.

LMR can include multiple family units as well as other types of housing. It will be implemented by the R-2S and R-2M zones.

The R-2S, Restricted Multiple-Family, zone will allow densities of 11.1 to 15 dwelling units per acre. Small lot subdivisions with duplex units, attached by a central party wall, with reduced side yard setbacks, would be permitted. This zone will also allow for detached units.

The R-2M, Limited Multiple-Family Residential, zone will allow densities of 11.1 to 21 dwelling units per acre. It would permit any type of residential structure, including single-family, condominiums, townhomes and apartments.

MDR includes any residential use. It is implemented by the R-3 zone.

The R-3, Multiple-Family Residential, zone allows densities of 21.1 to 32 dwelling units per acre. This zone allows any residential use and would probably be the highest density at which new construction would be approved. R-3 is also used as a designation for existing residential development with densities higher than 32 units per acre.

MHR will be implemented by the R-4 zoning classification. Although there are no areas designated MHR on the adopted Land Use Plan, it is anticipated that the MHR designation will ultimately accommodate changes in land uses in Specific Plan areas.

The R-4, Urban Residential, zone will be used primarily for existing projects with high densities in order to allow reconstruction of damaged projects in conformance with strict development standards. The allowed density in R-4 will be 32.1 to 42 dwelling units per acre.

Community Residential (CR)

The Community Residential land use designation will be applied to housing designed for particular residential clientele. It is implemented by the C-R zone.

The C-R, Community Residential, zone will be the highest density permitted in the City, from 42.1 to 60 dwelling units per acre. It will be used exclusively for seniors' housing, convalescent homes, congregate housing, and institutional quarters.

Mixed Use (MU)

Residential units may be a part of a mixed use development which also contains offices, commercial uses, and/or industrial. Each mixed use project will be given individual site review, and the permitted intensity of use and density of any dwelling units included in the site plan will be reviewed, and adjusted as necessary for approval at the review. The zoning classification for mixed use is MX. The Mixed Use land use classification is described in greater detail later in this Element.

Residential Build-Out

Table 5 displays data for residential land use in the Land Use Plan, which is comparable to data shown in Table 1, where residential land use in the existing General Plan is displayed. The average family size of 3.247, valid in 1992, is still used in estimating population, but that figure may well change in the future. The maximum build-out population is useful only for purposes of comparison.

Table 6, *Land Use Plan, Adjusted Estimate of Population and Housing*, differs from Table 5 in that it displays a more realistic estimate of the build-out data under the Land Use Plan. In making this estimate it was assumed that:

- Existing single-family houses in stable neighborhoods built under R-1 zoning will remain as they now are for the next twenty years.
- All presently vacant land will be developed in conformance with planned land uses within the next twenty years.
- Some land zoned for residential densities higher than R-1 will be developed to those higher densities within the next twenty years, even if such land is presently occupied by single-family houses.
- Land designated as Open Space will not be occupied by any residential construction within the next twenty years.
- Any land needed to widen the right-of-way for the Katella Avenue Smart Street project will be taken from the north side of Katella Avenue.
- All mobile home parks will be located within the Low Medium Density Residential (LMR) designated areas.

TABLE 6
LAND USE PLAN
ADJUSTED ESTIMATE OF POPULATION AND HOUSING

General Plan	Net Acres	Estimated No. Units at Build-Out	Estimated Population at Build-Out
LDR	4,538	24,891	80,821
LMR	295	3,229	10,485
MDR	974	20,705	67,729
MHR	0	0	0
CR	16	800	1,600
MU	¹⁰	884	2,870
Total	5,823	50,509	163,505

¹⁰ Mixed Use (MU) is allocated 363 acres within the City. Dwelling units within Mixed Use development have not been assigned acreages because they will be built in conjunction with other uses.

Population continues to be estimated using the average household size of 3.247 except in the Community Residential land use designation, where 2.0 is used for household size for older couples and single people living in seniors' housing, averaged with single persons living in congregate care facilities with some resident attendants.

Commercial Land Uses

The Land Use Plan addresses the problem of the oversupply of shallow commercial lots on several of the City's arterial roadways. These lots are too small to accommodate current marketable patterns of land use, and the excessive quantity of small commercial lots results in underuse and marginal economic viability.

While many of these underdeveloped commercial lots are planned for other uses, the total supply of commercial land does not diminish, but increases somewhat as commercial lots are consolidated into marketable parcels assembled in attractive locations.

A new category of commercial land has been added to the land use designation, Recreation Commercial (RC). RC designated land will offer privately operated recreation and entertainment facilities, thus supplementing the City's public park and recreation programs for Garden Grove residents. RC is also planned to serve tourists as well as attracting a regional clientele.

Commercial land use is classified into three land use designations. A listing of each designation and the zoning categories which will implement them follows.

Light Commercial (LC)

Light commercial uses include retail sales and services for neighborhoods and the larger community. It is implemented by three zones, O-C, C-1, and C-2.

The O-C, Office Commercial, zone will be similar to the Office Professional zone described in the next section, but would be designed with additional retail support. O-C will be highway-oriented and provide service and retail support for office complexes. The O-C zone will also support the Office Professional land use designation. Floor area ratios (FARs) for the O-C zone will be 0.4:1, or 0.4.

The C-1, Neighborhood Commercial, zone is "... intended to provide business at the neighborhood level in small scale convenience shopping facilities," as noted in the current Zoning Ordinance. The FAR for C-1 is 0.5.

The C-2, Community Commercial, zone is "... intended to provide a broad range of commercial retail and service needs for the residents of the City and surrounding communities," as stated in the current Zoning Ordinance. In the Land Use Plan, however, entertainment and automotive uses would be excluded from C-2. Adult entertainment would remain a C-2 use. The allowed FAR in C-2 is 0.55.

Recreation Commercial (RC)

Recreation Commercial is implemented by two zones, T-C and R-C.

The T-C, Tourist Commercial, zone will allow limited entertainment and hotel uses, this zone is tourist-oriented. No adult entertainment would be allowed in T-C zones. The FAR in the T-C zone will be 0.55.

The R-C, Recreation Commercial, zone will be for primary recreation areas, allowing bowling alleys, skating rinks, family recreation facilities, miniature golf, hotels, movie theatres, restaurants and the like. No adult entertainment would be allowed. The FAR in the R-C is zone will be 0.55.

Heavy Commercial (HC)

Heavy Commercial land uses are regulated by two zoning classifications, C-3 and C-4.

The C-3, General Commercial, zone would allow a wide range of commercial uses, including automotive repair, sales and services. Adult entertainment would be prohibited in C-3. The FAR in the C-3 zone is 0.56.

The C-4, Heavy Commercial, zone will be provided to accommodate intensive commercial uses, some of which may be incompatible with residential neighborhoods. Wholesaling, automotive body work, and contractors' storage yards are examples of heavy commercial uses. The FAR in the C-4 will be 0.56.

Commercial Build-Out

Table 7, *Land Use Plan, Land Use and Zoning Equivalence: Commercial*, displays the three commercial land use designations along with the zones designed to regulate these land uses. The fifth column, maximum square feet of floor area constructed at build-out is figured by multiplying the floor area ratio by the total number of square feet in each zone (number of acres multiplied by 43,560 square feet). In LC the floor area ratio is estimated to be .525, a combination of the three floor area ratios incorporated into the LC land use designation. The maximum number of square feet of floor area constructed at build-out is, as before, an unrealistic concept suitable only for comparative purposes.

It can be seen by a comparison of Tables 2 and 7 that the total number of acres in commercial use has been reduced from 804 acres in the existing Plan, to 665 acres in the Land Use Plan. This is, in part, a result of consolidation of underdeveloped strip commercial areas and, in part, the allocation of some commercial facilities to mixed use development.

The final column of Table 7 shows the adjusted totals of square feet at build-out, an estimate of feasible commercial construction in Garden Grove within the next twenty years. These estimates were made using the maximum floor area ratio for each commercial zone as a base, but then adjusting the resulting figure downward in consideration of location, vicinity, context, marketing feasibility and the like. The resulting total of approximately 10,244,700 square feet of commercial floor area is about 3,323,000 more square feet of space than

TABLE 7
LAND USE PLAN
LAND USE AND ZONING EQUIVALENCE WITH PROJECTIONS: COMMERCIAL

General Plan	Zone	FAR	Net Acres	Maximum Sq.Ft. at Build-Out	Adjusted Sq.Ft. at Build-Out
LC	O-C	0.4	550	12,577,950	8,582,000
	C-1	0.5			
	C-2	0.55			
RC	T-C	0.55	64	1,533,300	986,500
	R-C	0.55			
HC	C-3	0.56	51	1,244,000	676,200
	C-4	0.56			
Total			665	15,355,250	10,244,700

exists today. It is assumed that much of the City's future commercial space will be rebuilt or redeveloped commercial facilities, so that the total of 10,244,700 square feet includes far more than 3,323,000 square feet of new space. During the next twenty years there will be many obsolete and underdeveloped commercial buildings demolished and then replaced; the City's commercial building stock will incorporate newly constructed replacement space as well as new additions to the City's commercial facilities.

Office Professional Land Uses

It is assumed that there will be minimal need for additional traditional office space in the City within the next twenty years, due to present trends in office use, along with increases in home work stations for clerical and other office workers. In addition, it is anticipated that the growth in office space in the City will likely occur in the Mixed Use areas.

Office space will continue to be located at, or near, current concentrations of office use. Some new or expanded office locations are sited at major intersections and on major arterials, as can be seen on Exhibit 1. And as mentioned above, offices are one of the uses which will be permitted in the Mixed Use areas, so that some new office space will be located there.

Table 8, *Land Use Plan, Land Use and Zoning Equivalence with Projections: Office Professional*, shows the estimated build-out of Office Professional uses under the Land Use Plan. A comparison of Tables 3 with 8 shows that the area of Office Professional land use remains essentially unchanged compared to the City's inventory of land designated for office use; this is in line with reduced expectations of the future space requirements for office use.

The adjusted build-out estimate, made to provide a more economically feasible projection than the maximum build-out figure, was based on the maximum permitted floor area ratio and then adjusted downward according to location, access, vicinity and other potential influences on the extent of future office development.

Office Professional (OP)

The Office Professional land use is implemented with two zoning classifications, O-P and O-C.

The O-P, Office Professional, zone allows professional office uses only. In larger office developments some light retail and service uses will be allowed in support of the offices.

The O-C, Office Commercial, zone will be the same zone that appears with the LC, Light Commercial, use. The O-C zone will be intended as highway-oriented, service and retail support for office professional areas.

**TABLE 8
LAND USE PLAN
LAND USE AND ZONING EQUIVALENCE WITH PROJECTIONS:
OFFICE PROFESSIONAL***

General Plan	Zone	FAR	Net Acres	Maximum Sq.Ft. at Build-Out	Adjusted Sq.Ft. at Build-Out
OP	O-P, O-C	0.4	121	2,108,300	1,780,600

*Figures do not include office space which may be a part of mixed use areas.

Mixed Use

A land use designation new to Garden Grove is the Mixed Use area, to be regulated by a Mixed Use Zone. Mixed use will allow a combination of activities; commercial, office, and light industry or commercial, office and residential units. Mixed use will accommodate business owners who wish to live close to their shops or offices; employees who can economize on the transportation costs of the journey to work or to shop; service providers who prosper in close proximity to the industries or businesses they serve; and others who seek the locational advantages of mixed use.

Mixed Use (MU)

The zoning to implement the Mixed Use land use designation is the Mixed Use, MX, zone.

The MX, Mixed Use, zone will allow any combination of uses from any of the zones, similar to the present PUD land use designation.

Mixed Use zoning will offer the City the advantage of flexibility of design to take full advantage of market shifts and trends in land use. Each mixed use site will be individually reviewed and adjusted before approval, allowing the City to "fine tune" mixed use projects to meet its standards and fulfill its requirements.

Mixed use will be the land use designation applied to the Garden Grove Boulevard/Harbor Boulevard corridor area where new development will occur, using the R/UDAT Report as a basis for planning in that Corridor. Exhibit 1 shows the areas where Mixed Use will be used to take advantage of marketing opportunities and obtain maximum advantage from the City's inventory of vacant or underused buildable acreage.

Figures in Table 9, *Land Use Plan, Land Use and Zoning Equivalence with Projections: Mixed Use*, were derived with the same procedures used for previous tables. Maximum square feet of floor area at build-out is the product of the total area devoted to Mixed Use multiplied by its floor area ratio. The adjusted estimate is the maximum build-out number, modified by the design implications of mixed use, particularly when dwelling units are a part of the total facility.

Industrial Land Use

Industrial land use is not subject to a great deal of change in the Land Use Plan. Some areas containing older industrial facilities, built before the City's current standards were applied, will be designated for Mixed Use. In these cases, the new land use designation will encourage rehabilitation and improvement where it is needed.

TABLE 9
LAND USE PLAN
LAND USE AND ZONING EQUIVALENCE WITH PROJECTIONS:
MIXED USE

General Plan	Zone	FAR	Net Acres	Maximum Sq.Ft. at Build-Out	Adjusted Sq.Ft. at Build-Out
MU	MX	0.6	436	11,395,300	6,953,000

Industrial (I)

The substitution of the mixed use designation for the industrial land use designation accounts for the reduction in acres zoned for industrial use. There were 850 acres zoned for industry in the Existing Plan; there are 711 acres designated as industrial in the Land Use Plan. The proposed 711-acre total does not include new industrial space which may be located in Mixed Use areas.

As shown on Table 10, *Land Use Plan, Land Use and Zoning Equivalence with Projections: Industrial*, the adjusted estimate of future floor space built on industrially-zoned land projects about one-quarter of a million square feet of additional space over the current total of 17,749,600 square feet. As with commercial facilities, the 250,000 square feet of additional industrial space does not represent the total amount of new industrial construction, many industrial sites will be cleared and redeveloped within the next twenty years.

The adjusted, or feasible estimate reflects the influences of location and vicinity, as well as the fact that the full FAR is only attainable with multi-storied buildings; most modern industry prefers location in single-storied buildings to allow linear manufacturing and assembling processes.

Industrial land use is regulated by two zoning classifications, M-1 and M-P. There are no changes planned for either of these zones; current regulations will remain in force. The FAR for both M-1 and M-P is 1.0.

Open Space

The Open Space land use designation includes all parks, school campuses, public and quasi-public buildings, the Southern California Edison easement, the Orange County Flood Control District's channels, and the Orange County Transit Authority's right-of-way. The total acreage of open space in the Proposed Plan is 1,058, which represents some increase in the inventory of City parkland, as well as the addition of the new City Hall to the open space total.

Open Space (OS)

The Open Space land use designation is implemented by the OS zoning category. One change is proposed in the Open Space Land Use designation. Currently, the Zoning Ordinance permits single-family residences, with a minimum lot size of one acre, in Open Space. It is proposed to remove this permitted use from the open space land use. Because of the State's consistency requirements, this change would also have to be reflected in the City's Zoning Ordinance.

Summary of Land Use - Land Use Plan

A summary of all land uses proposed in the Land Use Plan is shown in Table 11, *Land Use Plan, Summary of Land Use*. This data can be compared with Table 1, in the Appendix, to evaluate all proposed land use changes.

**TABLE 10
LAND USE PLAN
LAND USE AND ZONING EQUIVALENCE WITH PROJECTIONS:
INDUSTRIAL***

General Plan	Zone	FAR	Net Acres	Maximum Sq.Ft. at Build-Out	Adjusted Sq.Ft. at Build-Out
I	M-1, M-P	1.0	711	30,971,100	17,979,800

*Figures do not include industry which may be located in mixed use areas.

**TABLE 11
LAND USE PLAN
SUMMARY OF LAND USE**

General Plan Land Use	Total Net Acres
Residential	5,823
Commercial	665
Office Professional	121
Mixed Use	436
Industrial	711
Open Space	1,058
Roadways	2,770
Total	11,584

6. GOALS AND POLICIES

Vacant properties offer opportunities

ISSUE

There are over 120 acres within the City which are currently vacant. These properties, particularly those in the Community Center and along the City's major arterials, offer tremendous development opportunities for a City which is primarily built-out.

GOAL

1. Suitable and appropriate development of the vacant properties within the City.

POLICIES

The City should:

- 1.1 Continue to actively market the availability of large parcels of prime vacant land.
- 1.2 Continue streamlining the City's permitting process to more readily facilitate development of these sites.
- 1.3 Approve development based on compliance with the General Plan, zoning, and applicable Specific Plans and Urban Design Plans, Redevelopment Plans, and other ordinances and regulations.

Related goals and policies are found in the Economic Development Element.

ISSUE

Strip commercial centers

Neighborhood commercial centers serve an important function in a community. However, often times strip commercial centers can detract from the community which they serve.

GOAL

2. Enhanced commercial centers in the City.

POLICIES

The City should:

- 2.1 Provide incentives to encourage lot consolidation and parcel assemblage to provide expanded opportunities for coordinated development.

Affordable housing

- 2.2 Encourage consolidation of parking and reciprocal access agreements among adjacent businesses.
- 2.3 Continue to provide rehabilitation assistance in targeted commercial districts to eliminate code violations and enable the upgrading of these properties.
- 2.4 Implement those policies which relate to commercial development, property maintenance, and landscaping in the Community Design Element.

Related goals and policies are found in the Circulation and Infrastructure, Economic Development and Community Design Elements.

ISSUE

Many residents have expressed concern that there are too many apartments within the community. However, apartments provide an important segment of affordable housing within the community.

GOAL

3. Enhanced and improved multi-family developments within the City of Garden Grove.

POLICIES

The City should:

- 3.1 Continue neighborhood improvement programs which focus on multi-family neighborhoods.
- 3.2 Work closely with the Police Department to ensure the safety of the residents in these areas and areas immediately adjacent.
- 3.3 Assess the need for daycare, "meals on wheels," recreation and other social support programs for residents of these areas.
- 3.4 Enforce those policies which relate to property maintenance found in the Community Design Element.

Related goals and policies are found in the Housing, Safety and Community Design Elements.

ISSUE

The OCTA right-of-way has been vacant and barren for several years. The right-of-way offers opportunities for an alternative transportation system, as

OCTA Right-of-Way

well as a variety of uses. Use of the right-of-way for recreation, parklands, mobile home parks, recreational vehicle parking, and commercial parking, and other purposes should be examined.

GOAL

4. The Orange County Transportation Authority (OCTA) right-of-way beneficially utilized in such a manner that does not preclude the use of the property for alternative transportation purposes in the future.

POLICIES

The City should:

- 4.1 Conduct a study of the OCTA right-of-way to determine which interim uses are most appropriate for this area, the location and extent of those uses, the interface between those uses and adjacent land uses, and examine like issues. Uses to be examined include, but are not limited to: parks and recreational amenities, public facilities, parking, recreational vehicle storage, use of the OCTA R.O.W. for a Farmer's Market, community gardens, and mobile home parks.
- 4.2 Work with the OCTA to ensure the proper maintenance of the right-of-way until beneficial interim uses are developed there.

Related goals and policies are found in the Circulation and Infrastructure, Community Design, as well as Parks, Recreation and Cultural Activities Elements.

ISSUE

Existing and proposed land uses along the City's incorporation boundaries in adjacent cities can have profound effects on residents nearby in Garden Grove.

GOAL

5. Monitor proposed development of land adjacent to Garden Grove.

POLICIES

The City should:

- 5.1 Cooperate with other jurisdictions in developing compatible land uses on lands adjacent to, or near, the City's corporate boundaries to minimize significant impacts and potentially benefit the residents, businesses, and/or infrastructure systems in Garden Grove.

Development adjacent to the City

Land Use Compatibility

- 5.2 Take an assertive posture concerning developments adjoining the City's boundaries.
- 5.3 Encourage quality development that is consistent with Garden Grove development standards and the policies of this Element as well as the Community Design, Growth Management and Circulation Elements.

Related goals and policies are in the Circulation and Growth Management Elements.

ISSUE

Commercial and industrial uses which are adjacent to residential uses can create noise, traffic, odor, litter, aesthetic, and other problems for the residents within these areas.

GOAL

6. Adjacent land uses that are compatible with one another.

POLICIES

The City should:

- 6.1 Require that commercial and industrial developments that adjoin residential uses be adequately screened and buffered from the residential areas.
- 6.2 Monitor existing, and carefully review all requests to expand, intensive commercial and industrial uses.
- 6.3 Ensure that zoning classifications are consistent with General Plan designations.
- 6.4 Encourage mixed use development by providing incentives for senior citizen and multi-family housing.
- 6.5 Locate higher density residential uses within proximity of commercial centers to encourage pedestrian traffic, and to provide a consumer base for commercial uses.

Related goals and policies are found in the Safety, Community Design and Growth Management Elements.

ISSUE

Single-family residential uses along arterial streets have become impacted by increased traffic along major arterials.

Single-family Residences along Arterial Streets

*Parks to Population Ratio
does not Achieve City's
Goal*

GOAL

7. Single-family residential uses buffered along arterial streets.

POLICIES

The City should:

- 7.1 Consider a special overlay zone for appropriate street segments, in order to protect existing single-family residential uses.
- 7.2 Work with property owners to buffer single-family residences located along arterial streets.

ISSUE

Garden Grove has a goal to achieve a parkland to population ratio of five acres to 1,000 persons. The City currently has a ratio of 1.07 acres to 1,000 persons. The number of young families in Garden Grove is increasing, their recreational needs must be satisfied.

Due to significant limitations in acquiring additional parklands, the development of commercial recreational uses within the City becomes a valuable option to address this situation.

GOAL

8. Achievement of the City standard for the provision of parklands and open space.

POLICIES

The City should:

- 8.1 Acquire additional lands for parks and open space, as feasible.
- 8.2 Continue cooperative use of the recreational facilities shared with other agencies.

Related goals and policies are found in the Parks, Recreation and Cultural Activities Element.

GOAL

9. Desirable commercial recreation enterprises in Garden Grove.

Retirement of Specific Plan Designations

Special Study Areas

POLICIES

The City should:

- 9.1 Develop commercial recreation zoning criteria to address the development of such uses.
- 9.2 Actively market the City's commercial recreation properties.

Related goals and policies are found in the Parks, Recreation and Cultural Activities Element.

ISSUE

It is sometimes difficult to correlate Specific Plan designations with the City's zoning and General Plan. The Brookhurst/Chapman Specific Plan has fulfilled it's intent of redevelopment of the area, with the exception of the southeast corner (which has not been redeveloped for a variety of reasons outside the control of the City). The Harbor Corridor and Community Center Specific Plans provided useful development direction for a number of years but do not respond to current market conditions and development scenarios.

GOAL

- 10. Development standards and design guidelines easily understood and readily applicable for all areas of the City.

POLICIES



The City should:

- 10.1 Consider the retirement of the existing Specific Plan designations within the three existing Specific Plan areas.
- 10.2 Amend the Zoning Ordinance to fold in existing Specific Plan designations.
- 10.3 Develop Urban Design Plans or new Specific Plans for critical areas of the City, as necessary.

ISSUE

There are a number of areas in the City which offer special opportunities for development or redevelopment based on their location, access, proximity to Disneyland, or size of vacant acreage. These areas, shown on Exhibit 2, *Special Study Areas*, require more detailed study than that provided in the General Plan.



-  City of Garden Grove Boundary
-  Special Study Area



GOAL

11. Clear direction for development in the Special Study Areas.

POLICIES

The City should:

- 11.1 Evaluate and study each area, based on City priorities.
- 11.2 Upon determination whether a Specific Plan, Urban Design Plan, or other plan(s) and/or document(s) is/are the desirable implementation tool, embark on such a study.

ISSUE

Most residential areas of Garden Grove are attractive and, in general, well-maintained. Planning for neighborhood preservation of these valued areas is one of the most important purposes of the City's General Plan.

GOAL

12. Stable, well-maintained residential neighborhoods in Garden Grove.

POLICIES

The City should:

- 12.1 Establish compatible zoning districts and periodically review land use designations for compatibility.
- 12.2 Continue to monitor maintenance standards in all neighborhoods. Pockets of deterioration will be prevented by firm application of code enforcement to any property which threatens the appearance and stability of its neighborhood.
- 12.3 Identify the homes of those elderly occupants who are unable, physically or financially to maintain their residence. Using set-aside or other appropriate funding, assist in the maintenance or improvement of such housing.
- 12.4 Encourage the use of volunteers, property owner and other neighborhood-based associations to reduce crime and vandalism, maintain neighborhood amenities, and provide neighborhood social support through welcoming programs for newcomers, interest group meetings, block parties and other social events.

Related goals and policies are found in the Housing and Community Design Elements.

ISSUE

The City of Garden Grove has a total of 1,909 acres in Redevelopment Project Areas, as shown on Exhibit 3, *Community Project Area*. Among the goals of the Redevelopment Plan are: the elimination of physical blight and deterioration; upgrading of the project area; encouragement of private sector investment; provision of necessary circulation and infrastructure improvements; and promotion of the economic well-being of the area. While great strides have been made in many locales within the Redevelopment Plan Project Area, the City must remain focused on their goals for the remaining areas.

GOAL

13. Application of the Redevelopment Plan to enhance Redevelopment Plan Project Areas.

POLICIES

The City should:

- 13.1 Direct agency investments to those economic activities and locations with the greatest potential economic returns, specifically the retail sector, services, and labor intensive industrial activities.
- 13.2 Bring the site assembly tools and marketing efforts of redevelopment to bear in the revitalization of the Community Center, Harbor Corridor and along Garden Grove Boulevard.
- 13.3 Redevelopment financing devices should be coupled with property code enforcement activities to assist non-residential and residential improvement activities.
- 13.4 A fiscal impact analysis for all commercial or industrial projects in excess of ten acres may be required to ensure that governmental service costs are covered by anticipated project revenues or that a finding of special circumstances applied.
- 13.5 Continue to coordinate redevelopment area public improvements with those in the City's capital improvements program.

Related goals and policies are found in the Economic Development, Circulation and Infrastructure, and Community Design Elements.

GARDEN GROVE GENERAL PLAN



 Redevelopment Plan Project Area



ISSUE:

Agriculture has played an important role in the history of Garden Grove; the annual Strawberry Festival celebrates this heritage. The few remaining agricultural fields are rapidly disappearing due to the economic pressures associated with an urbanized community.

14. Preserve open space and agricultural lands in Garden Grove, where feasible.

POLICIES

The City should:

- 14.1 Examine the feasibility of an agricultural zoning designation.
- 14.2 Where possible, designate agricultural and/or open space lands for public parks.
- 14.3 Institute methods and programs by which open space and agricultural areas may be conserved and protected.
- 14.4 Implement the goals and policies found in the Open Space/ Conservation Element which address agricultural preservation.

Related goals and policies are found in the Open Space/Conservation and Parks, Recreation and Cultural Activities Elements.

GARDEN GROVE GENERAL PLAN

◆ **PLANNING AREAS**

7. PLANNING AREAS

The goals and policies discussed previously in this Element and found in later Elements of the General Plan apply to all of the City of Garden Grove. Garden Grove is not a homogeneous entity, however; like all cities, it is composed of a diversity of neighborhoods and districts, each of which has its own unique set of conditions.

The Land Use Element provides the opportunity to consider the varying conditions in which General Plan goals and policies will be implemented. The Land Use Element can focus on the differing issues affecting separate parts of the City, noting those parts of the City in which certain of the goals and policies will be of particular importance, and addressing the areas where their application will be most effective.

In order to provide this focus, the City has been divided into nine Planning Areas, as shown on Exhibit 4, *Planning Areas*. In each of the Areas the particular planning issues important to the Area are described. In some cases, the Areas will share several of the same issues, in other cases, issues will be unique to one Area.

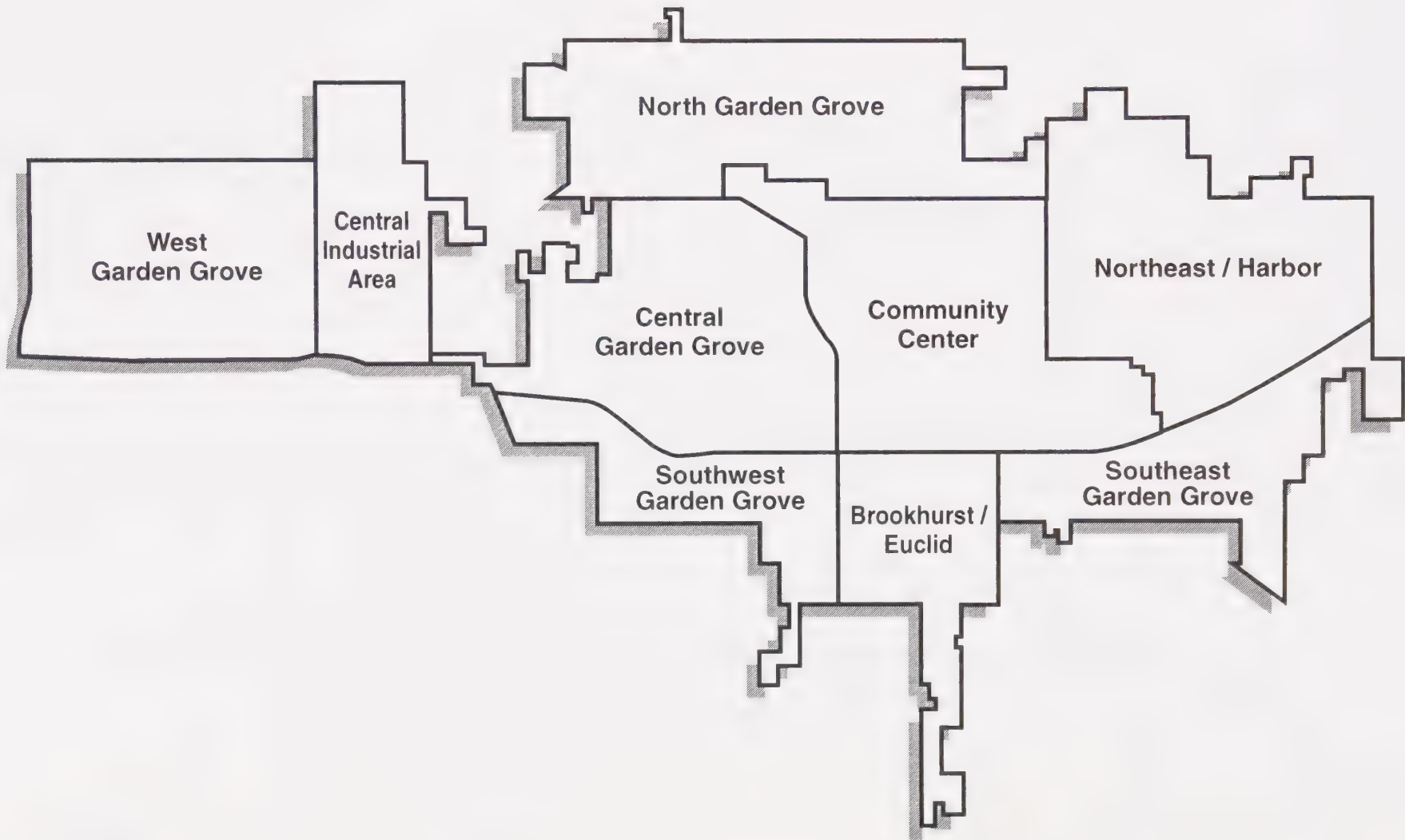
In all Areas each issue described will be followed by the goals and policies necessary to address it. Goals and policies are referenced from all elements of the General Plan.

It is important to note that all elements and their goals and policies are of equal legal weight in the General Plan. The goals and policies cited in the Areas are not chosen because they are more important than others, but because they are applicable to specific planning issues in the Areas. Area planning provides a locational guide to General Plan implementation, to be detailed in the Implementation Plan.

7.2 AREA ON WEST SIDE OF GARDEN GROVE

THE PLANNING AREA

The area on the west side of Garden Grove is the westernmost area of the City. The western boundary of this Area is formed by the City's incorporation boundary along the Bolsa Chica Channel. To the west of the Channel is the Los Alamitos Armed Forces Reserve Center and the City of Seal Beach. West Garden Grove extends north to the northern City incorporation boundary, located north of Chapman Avenue. Adjacent on the north is the City of Cypress. The eastern boundary of this Area is Knott Street. The southern boundary is formed by the Garden Grove Freeway, South of the Freeway is the City of Westminster. Exhibit 5, *West Garden Grove*, shows the location and extent of this Area.



Los Alamitos

Primary Entry -
Entry monumentation
needed to announce
arrival into Garden Grove

Provide linkages between
centers to avoid necessity of
entering Valley View Street

Targeted revitalization area -
Site may offer specialized
commercial opportunities

Maintain special median
treatments and enhance
streetscape as appropriate

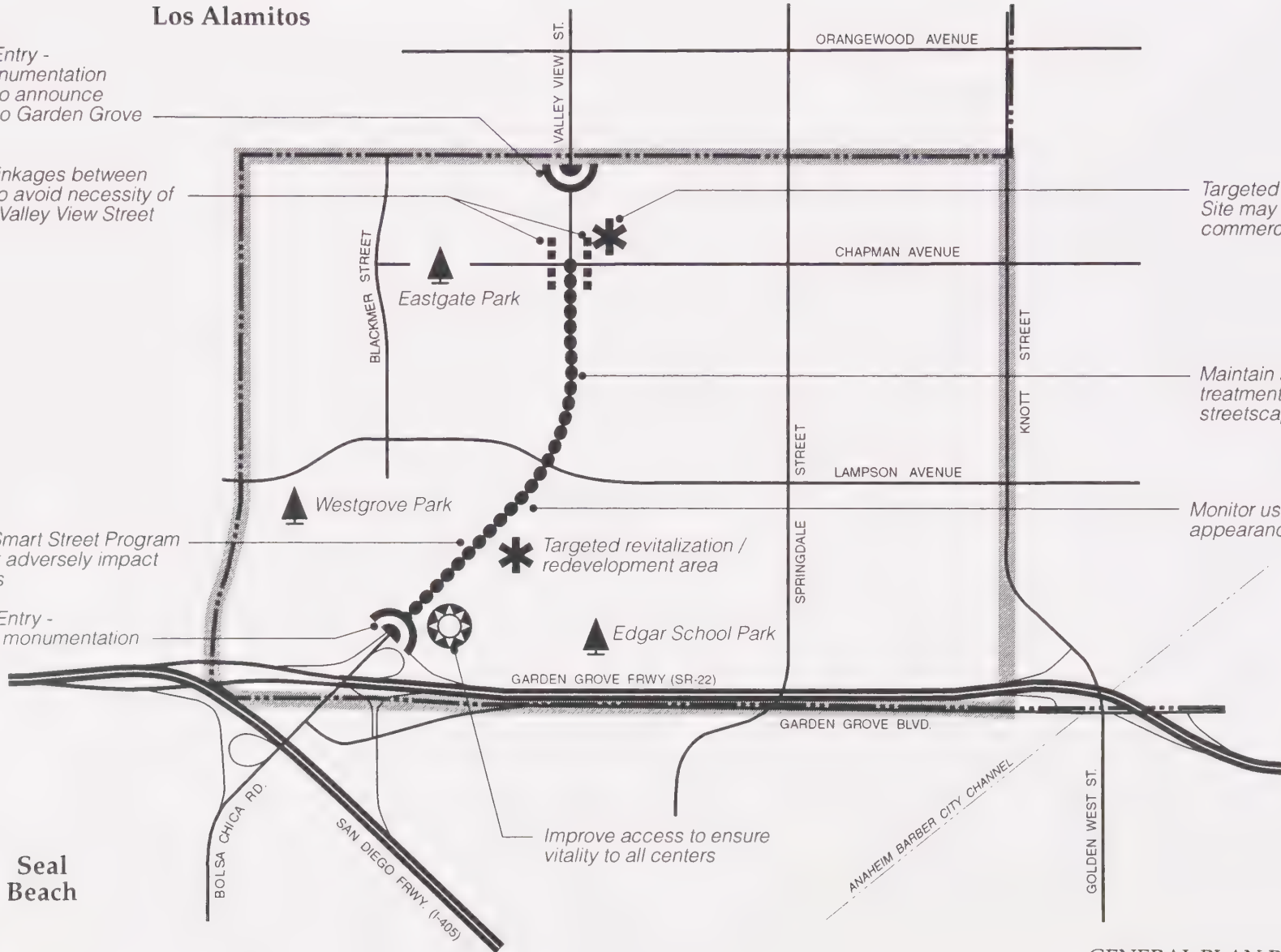
Monitor uses and development
appearance of the corridor

Ensure Smart Street Program
does not adversely impact
residents

Primary Entry -
Maintain monumentation

Improve access to ensure
vitality to all centers

Seal
Beach



GENERAL PLAN PLANNING AREA
West Garden Grove



West Garden Grove is a stable, fully developed residential area with an established identity as a defined community within the City. Bisected by a commercial corridor along Valley View Street, it is well served by convenient access to shopping, public facilities and the freeway system. Issues in West Garden Grove arise from its location, somewhat separated from the central portions of Garden Grove to the east; by its maturity, having been almost fully developed during the 1950s; and by the growing importance of its central artery, Valley View Street, as a regional thoroughfare.

GOALS AND POLICIES

ISSUE

The commercial corridor along Valley View Street has areas vulnerable to vacancies. Underuse, deferred maintenance and the consequent signs of property decline are becoming visible in some locations on Valley View Street.

GOAL

1. Revitalization of the Valley View Street commercial corridor.

POLICIES

The City should:

- 1.1 Continue to monitor the uses and development proposed in the Valley View Commercial Corridor to determine the viability of existing and proposed development.
- 1.2 Using redevelopment authority, encourage a mix of retail shops and services in the Valley View Corridor which better meet the needs of the area's present and potential clientele.
- 1.3 Monitor the appearance of all commercial and service facilities in the Valley View Corridor to prevent areas of decline by requiring improved maintenance or rehabilitation, as necessary.
- 1.4 Work with the property owner(s) of commercial developments which have, or are currently, in a state of deterioration to revitalize these centers. Priority should be given to the center at the northeast corner of Valley View Street and Chapman Avenue.

Related goals and policies are found previously in this Element, as well as in the Economic Development and Community Design Elements which relate to commercial development.

Valley View Street as a Smart Street

ISSUE

Valley View Street is designated as a future Smart Street in the County of Orange Congestion Management Plan. It is anticipated that traffic volumes and speeds will increase on Valley View Street, where traffic is already seen as excessive, now invading residential neighborhoods, creating safety concerns and hindering access to some commercial sites.

GOAL

2. The Valley View Smart Street designation should be of benefit to all of western Garden Grove.

POLICIES

The City should:

- 2.1 Work with the appropriate agencies to improve access to all facilities in the Valley View Commercial Corridor.
- 2.2 Work with the appropriate agencies to protect West Garden Grove neighborhoods from the impacts of increased traffic on Valley View Street.
- 2.3 Work with the appropriate agencies to ensure that Smart Street improvements include landscape/streetscape treatments which are complementary to the Planning Area.

Related goals and policies are found in the Circulation and Infrastructure, Noise and Air Quality Elements.

ISSUE

Sense of Isolation in West Garden Grove

West Garden Grove is separated from the rest of the City by the Central Industrial Area and the City of Stanton, giving some West Garden Grove residents a sense of isolation from their City.

GOAL

3. Affinity of West Garden Grove to the City of Garden Grove.

POLICIES

The City should:

- 3.1 Examine the feasibility of operating a City Service Office in West Garden Grove to provide information, assistance and service to businesses and residents of the area.
- 3.2 Expand the City's entryway signage program in West Garden Grove to enhance the area's identity with the rest of the City.
- 3.3 Encourage the local cable television channel to expand their local coverage to include neighborhood focus programs, offering West Garden Grove the opportunity to see itself and to be seen as an important community within a City of communities.

Related goals and policies are found in the Community Design Element.

ISSUE

Virtually all of West Garden Grove is composed of well-maintained single-family residential neighborhoods, built during the late 1950s and early 1960s. These neighborhoods are a source of pride within the community and it is important to ensure the continuation of the quality of life they represent.

GOAL

4. Preservation of West Garden Grove's residential neighborhoods.

POLICIES

The City should:

- 4.1 Continue to monitor maintenance standards in all neighborhoods. Pockets of deterioration will be prevented by firm application of code enforcement to any property which threatens the appearance and stability of its neighborhood.
- 4.2 Identify the homes of those elderly occupants who are unable, physically or financially to maintain their residence. Using set-aside or other appropriate funding, assist in the maintenance or improvement of such housing.
- 4.3 Encourage the use of property owner and other neighborhood-based associations to reduce crime and vandalism, maintain neighborhood amenities, and provide neighborhood social support through welcoming programs for newcomers, interest group meetings, block parties and other social events.

Related goals and policies are found in this Element, as well as in the Housing and Community Design Elements.

Park Use

ISSUE

In the past, residents of West Garden Grove have taken great pride in the park and recreational facilities available in their communities, and have enjoyed frequent use of these facilities. Recently, however, concerns have arisen about the safety of local parks, which has affected the attendance and use of these facilities.

GOAL

5. Safe parks, well-used by residents of West Garden Grove.

POLICIES

The City should:

- 5.1 Continue to include parks in West Garden Grove's Community Policing Program to develop innovative strategies for increasing personal security in local parks.
- 5.2 Adopt defensible space concepts in park facility design, landscaping, and lighting.
- 5.3 Encourage neighborhood organizations to become involved in park use, park programs and park maintenance.
- 5.4 Continue to assess and survey West Garden Grove residents to assure that park facilities and programs are designed to meet their recreational needs and respond to their preferences.
- 5.5 Create a "Ranger" park program to enhance the aesthetics and safety of the area's parks.

ISSUE

Some areas of West Garden Grove are affected by high noise levels generated by operations at the Los Alamitos U.S. Naval Reserve Air Base. Areas of West Garden Grove are also subject to the Federal Aviation Administration (FAR) Part 77 regulations for the Los Alamitos Air Base.

GOAL

6. Minimal air traffic noise levels affecting West Garden Grove.

Impacts From Los Alamitos U.S. Naval Reserve Air Base

POLICIES

The City should:

- 6.1 Coordinate with the Airport Land Use Commission to ensure consistency with the scope and intent of the Airport Land Use Commission Law (Public Utilities Code Section 21670, et seq.).
- 6.2 Maintain communications with the Los Alamitos Base regarding the effects of base improvements and air traffic patterns on land uses adjoining the Base.
- 6.3 Support only that Air Base development which adheres to the Airport Environs Land Use Plan and City and County noise ordinances.
- 6.4 Ensure that development adheres to Federal Aviation Administration (FAR) Part 77 regulations for the Los Alamitos Air Base.

ISSUE

Infrastructure Deficiencies

Inadequate capacities cause substandard performance of some infrastructure facilities in western Garden Grove. Some areas in western Garden Grove are vulnerable to flooding during periods of heavy rain, because of inadequate storm drainage. These infrastructure problems jeopardize the safety of residents and visitors to the western Garden Grove Planning Area.

GOAL

7. Infrastructure adequate to provide safety and convenience to western Garden Grove residents.

POLICIES

The City should:

- 7.1 Achieve and maintain desired levels of service on all roads and intersections in the western Garden Grove Planning Area.
- 7.2 Improve the storm drainage in western Garden Grove by implementing the Garden Grove Master Plan for Storm Drainage.

Related goals and policies are found in the Circulation and Infrastructure Element and in the Safety Element.

7.3 CENTRAL INDUSTRIAL AREA

THE PLANNING AREA

The Central Industrial Area is bounded by Knott Street to the west, the City's incorporation boundaries to the north and to the east, and Garden Grove Boulevard and the Garden Grove Freeway to the south. The Southern Pacific Railroad line is located along much of the eastern boundary of the Planning Area. The City of Stanton is on the north and east, and the City of Westminster is to the south. Exhibit 6, *Central Industrial Area*, shows the location and extent of this Area.

The Central Industrial Area is the prime industrial location within the City of Garden Grove. A major part of the Area has been developed for light industry with generous landscaping, attractive signage and building facades, unobtrusive parking areas and well lighted and well maintained streets. The Central Industrial Area is a significant revenue resource for Garden Grove, and a pleasant, compatible neighbor to the City's residential neighborhoods. Issues in the Central Industrial Area concern small pockets of development which do not conform to the overall pattern: older industrial facilities built without the aesthetic amenities of more recent development, and non-industrial land uses located peripheral to the dominant industrial land use.

GOALS AND POLICIES

ISSUE

Most of the Central Industrial Planning Area is designed, constructed and maintained to the highest standards. Within the Area, however, there are small pockets of older development which do not conform to these standards in their building facades, set-backs, landscaping, screening and parking facilities.

GOAL

1. Appropriate function and attractive appearance for all properties within the Central Industrial Area.

POLICIES

The City should:

- 1.1 Consider the expansion of the Redevelopment Project Area to include older properties located within the Central Industrial Area.
- 1.2 Monitor the amount of non-industrial activity within the Planning Area and evaluate the impacts of these activities on the industrial base.

Maintenance and appearance of all industrial properties

Cypress

Stanton

GARDEN GROVE

GENERAL PLAN

Secondary entry into City

Large vacant properties

Chapman Sports Complex -
Evaluate parking provisions
at the complex

Residential uses

Southern Pacific Railroad and
SCE Easement

Rehabilitate older industrial
areas and examine potential to
expand Redevelopment Area to
include older industrial areas

Explore the potential to annex
this area into Garden Grove

Primary Entry into City -
Monumentation necessary

Continue to market and
maintain this premiere
industrial area

Secondary Entry into City



GARDEN GROVE

- 1.3 Encourage the location of service businesses and industries which provide support for the industrial base.
- 1.4 Provide incentives to encourage lot consolidation and parcel assemblage to provide expanded opportunities for development.
- 1.5 Encourage consolidation of parking and reciprocal access agreements between occupants of adjacent properties.
- 1.6 Provide rehabilitation assistance to owners of older properties in the Planning Area in order to eliminate code violations and improve the appearance of these properties.
- 1.7 Continue support of the business retention program.

Related goals and policies are found in the Community Design and Economic Development Elements.

ISSUE

Potential annexation area

There is a small area of land lying south of Garden Grove Boulevard, and north of the Garden Grove Freeway which, to all appearances, is part of the Central Industrial Planning Area, and of the City of Garden Grove. Despite its close relationship with the City of Garden Grove, and its separation from the City of Westminster by the Garden Grove Freeway, this area of land is now part of the incorporated City of Westminster.

GOAL

2. Annexation to the City of Garden Grove that land which lies south of Garden Grove Boulevard, north of the Garden Grove Freeway, east of Knott Street and west of Beach Boulevard.

POLICIES

The City should:

- 2.1 Work with the appropriate agencies and parties to explore and possibly to de-annex the subject area from the City of Westminster and annex it to the City of Garden Grove so that there is a cooperative transition of jurisdiction for the area.
- 2.2 Provide identity to the annexed area as a part of the City of Garden Grove.
- 2.3 Consider expansion of the Redevelopment Project Area to include the annexed area.

*Underutilized and/or
vacant properties*

- 2.4 When necessary, provide rehabilitation assistance to property owners within the annexed area for the elimination of code violations and the upgrading of substandard properties.

Related goals and policies are found earlier in this element and in the Community Design Element.

ISSUE

There are some underutilized and vacant properties within the Central Industrial Area. As the economic recovery continues in the Southern California region, there is an opportunity to market these properties to desirable industries, thereby ensuring the continued prosperity and success of the Central Industrial Area.

GOAL

3. Attraction and retention of prime industrial firms throughout the Central Industrial Planning Area.

POLICIES

The City should:

- 3.1 Market properties within the Central Industrial Area as beneficiaries of the attractive, thriving and prosperous industrial community of which they are a part.
- 3.2 Maintain contact with local realtors to keep current on real estate prices and marketing trends in competing industrial areas within the Southern California region.
- 3.3 Initiate strategies to pursue those industries that have favorable growth prospects and offer employment opportunities suited to the local labor force.
- 3.4 Continue to communicate with owners and managers of existing firms in the Central Industrial Area to ensure that their needs are met, their location retained within the Area, and their plans for expansion are accommodated within the Area.

Related goals and policies are found in the Economic Development Element.

7.4 NORTH GARDEN GROVE

THE PLANNING AREA

North Garden Grove is bounded by the City's incorporation boundaries to the west and to the north, and by Ninth Street to the east. Most of the southern boundary of this Area lies along Chapman Avenue, except for that section in the vicinity of Gilbert and Brookhurst Streets. Exhibit 7, *North Garden Grove*, shows the extent of this Planning Area and its relationship to the surrounding areas.

The land use in North Garden Grove is predominantly single-family detached housing; the Area contains some of the oldest residential neighborhoods in the City. Among the lower density single-family neighborhoods, there are four multi-family, or apartment areas. Issues in North Garden Grove recognize the diversity of neighborhoods, which vary in character from those which are prestigious, affluent and well-maintained to those less favored sections, both residential and commercial, which show a need for increased property maintenance. Corrective measures required in these areas range from minor to reconstructive. A second set of issues in the Planning Area concerns circulation: North Garden Grove is overlain with five heavily travelled arterial highways, including Katella Avenue, designated for re-engineering as a "Smart Street."

GOALS AND POLICIES

ISSUE

OCTA Right-of-Way

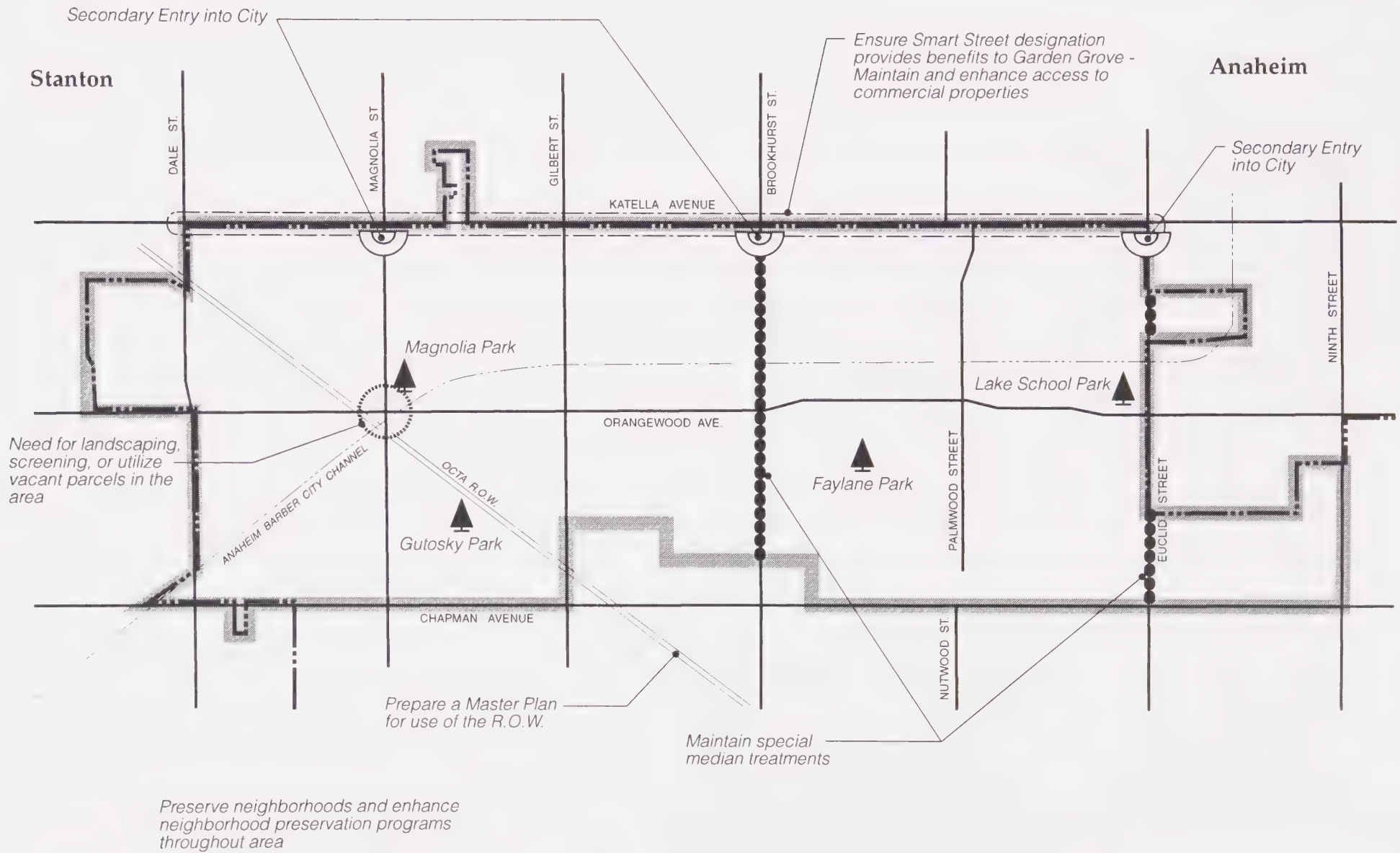
The Orange County Transit Authority (OCTA) right-of way crosses the North Garden Grove Planning Area, running diagonally from Dale Street at the Area's northwestern corner, southeast to Gilbert Street, near Chapman Avenue. Because the OCTA right-of-way is 120 feet wide, and barren of any landscaping or improvements, it interrupts the pleasant pattern of the Planning Area's streets and neighborhoods with frequent views of desolation. The OCTA right-of-way represents the waste of a valuable resource - land in Garden Grove.

GOAL

1. Restoration of the OCTA right-of-way to beneficial use.

POLICIES

The City should:



Katella Avenue as a Smart Street

- 1.1 Prepare a Master Plan for the use of that section of the OCTA right-of-way which lies between Dale Street and Gilbert Street.
- 1.2 Work with the OCTA to ensure the proper maintenance of the right-of-way until beneficial interim uses are developed there.

Related goals and policies are found earlier in this Element and in the Circulation and Infrastructure, Community Design, and Parks, Recreation and Cultural Activities Elements.

ISSUE

Katella Avenue is designated as a future Smart Street in the County of Orange Congestion Management Plan. Currently, the south side of Katella Avenue is occupied by a multiplicity of commercial sites, some of which could benefit from increased traffic on Katella, while others are prospering as neighborhood shopping and service areas. Parts of several residential neighborhoods face Katella, but in almost all cases are protected from the arterial traffic by collector streets and, in two instances, dense oleander hedges. Just behind all properties fronting Katella are a diversity of neighborhoods, ranging in density from detached single family housing to apartments, and in appearance from well maintained to deteriorating. Design and engineering changes which may be necessary to bring Katella to Smart Street standards and capacities could seriously affect the well-being of much of North Garden Grove Planning Area.

GOAL

2. Katella Avenue Smart Street designation shall benefit all of North Garden Grove.

POLICIES

The City should:

- 2.1 Work with appropriate agencies to maintain and improve access to all commercial sites on the south side of Katella Avenue in Garden Grove.
- 2.2 Monitor current and proposed commercial uses on Katella Avenue to maintain and improve the economic viability of the area.
- 2.3 Work with the appropriate agencies to protect North Garden Grove neighborhoods from any negative impacts which Katella Avenue Smart Street changes bring to the Area.
- 2.4 Work with the City of Anaheim on improvements to the north side of Katella Avenue per the Smart Street Program.

Related goals and policies are found previously in this Element, as well as in the Economic Development, Community Design and Circulation and Infrastructure Elements.

ISSUE

North Garden Grove contains a diversity of residential neighborhoods. These include some of the City's older houses, and some of its newest apartments; some of the City's most prestigious, beautifully maintained communities and some of its marginally desirable areas where maintenance has been long deferred. Although a diversity of housing types is to be encouraged within the City, a diversity of maintenance standards is not. A uniformly high standards of residential property maintenance is necessary to preserve residents' real estate values and ensure continuation of their high quality of life.

GOAL

3. Preservation and enhancement of all residential neighborhoods in North Garden Grove.

POLICIES

The City should:

- 3.1 Continue to monitor maintenance standards in all neighborhoods. Pockets of deterioration will be prevented by firm application of code enforcement to any property which threatens the appearance and stability of its neighborhood.
- 3.2 Encourage the use of property owner and other neighborhood-based associations to reduce crime and vandalism, maintain neighborhood amenities, and provide neighborhood social support through welcoming programs for newcomers, interest group meetings, block parties and other social events.
- 3.3 Continue to provide rehabilitation assistance to those neighborhoods where it is needed with the understanding that subsequent code enforcement will be used to protect the City's investment in the area.
- 3.4 Showcase those neighborhoods which exhibit residents' pride and exemplary standards of maintenance by conducting and publicizing garden tours, house tours, Christmas decoration competitions and the like.

Related goals and policies are found earlier in this Element, as well as in the Housing and Community Design Elements.

County islands

ISSUE

Two areas of unincorporated land adjoin the North Garden Grove Planning Area. One stretches north of Katella, between Mac Street and Brookhurst Avenue, the second is located west of Dale Street between Orangewood Avenue and Chapman Avenue. As unincorporated "County islands," these areas present the City with a number of problems: properties can be developed and used without application of City standards; deteriorated island properties diminish the values of adjoining neighborhoods within north Garden Grove; and island residents may benefit from City-funded facilities without providing their share of support for those facilities with their property taxes.

GOAL

4. Resolution of the problems created by County islands adjoining North Garden Grove.

POLICIES

The City should:

- 4.1 Work with the County of Orange to secure the City's preliminary review and counsel for all development or redevelopment proposed for County islands adjoining Garden Grove.
- 4.2 Work with the County of Orange to require that City of Garden Grove building and development standards are met in all new development or redevelopment within adjoining County islands.
- 4.3 Work with the County of Orange to apply neighborhood housing, rehabilitation and related programs to improve deteriorated neighborhoods within County islands adjoining the City of Garden Grove.
- 4.4 Work with the Local Area Formation Commission (LAFCO) to encourage the annexation of County islands to the appropriate adjoining city.

ISSUE

Infrastructure Deficiencies

Inadequate capacities cause substandard performance of some infrastructure facilities in North Garden Grove. The North Garden Grove Area is crossed by five major arterial highways, several of which are congested and thus operate

at unacceptable levels of service. In addition, because of inadequate storm drainage several of these thoroughfares and their connecting streets, are vulnerable to flooding during periods of heavy rain. These infrastructure problems jeopardize the safety of residents and visitors to the North Garden Grove Planning Area.

GOAL

5. Infrastructure adequate to provide safety and convenience to North Garden Grove residents.

POLICIES

The City should:

- 5.1 Achieve and maintain desired levels of service on all roads and intersections in the North Garden Grove Planning Area.
- 5.2 Improve the storm drainage in North Garden Grove by implementing the Garden Grove Master Plan for Storm Drainage.

Related goals and policies are found in the Circulation and Infrastructure Element and in the Safety Element.

7.5 CENTRAL GARDEN GROVE THE PLANNING AREA

Central Garden Grove is bounded by the City's boundaries to the west, Chapman Avenue to the north, the OCTA right-of-way and Brookhurst Street to the east, and the Garden Grove Freeway to the south. Exhibit 8, *Central Garden Grove*, shows the extent of this Planning Area and its relationship to the surrounding areas.

Land area in Central Garden Grove, as in the rest of the City, is mainly devoted to single-family residential use. In Central Garden Grove, however, there are larger concentrations of higher density apartment buildings than are found to the north and west. Garden Grove Boulevard, the City's signature commercial thoroughfare, forms the spine of the Planning Area. Issues in the Area center on the successful transition of Garden Grove Boulevard from its past importance as a primary route to Los Angeles, to its future potential as a business, service and retail corridor serving the City and its region. The impacts of this transition can affect land uses adjacent to the corridor in a large portion of the Planning Area.

GARDEN GROVE

GENERAL PLAN

Street closures at Louise, Lorna and Josephine Streets along Garden Grove Boulevard

Neighborhood preservation in existing residential neighborhoods

Street closures at Jefferson and Wilson Streets at Garden Grove Boulevard

Prepare a Master Plan for the R.O.W.

Smart Street

Special Opportunity Area / large vacant parcel

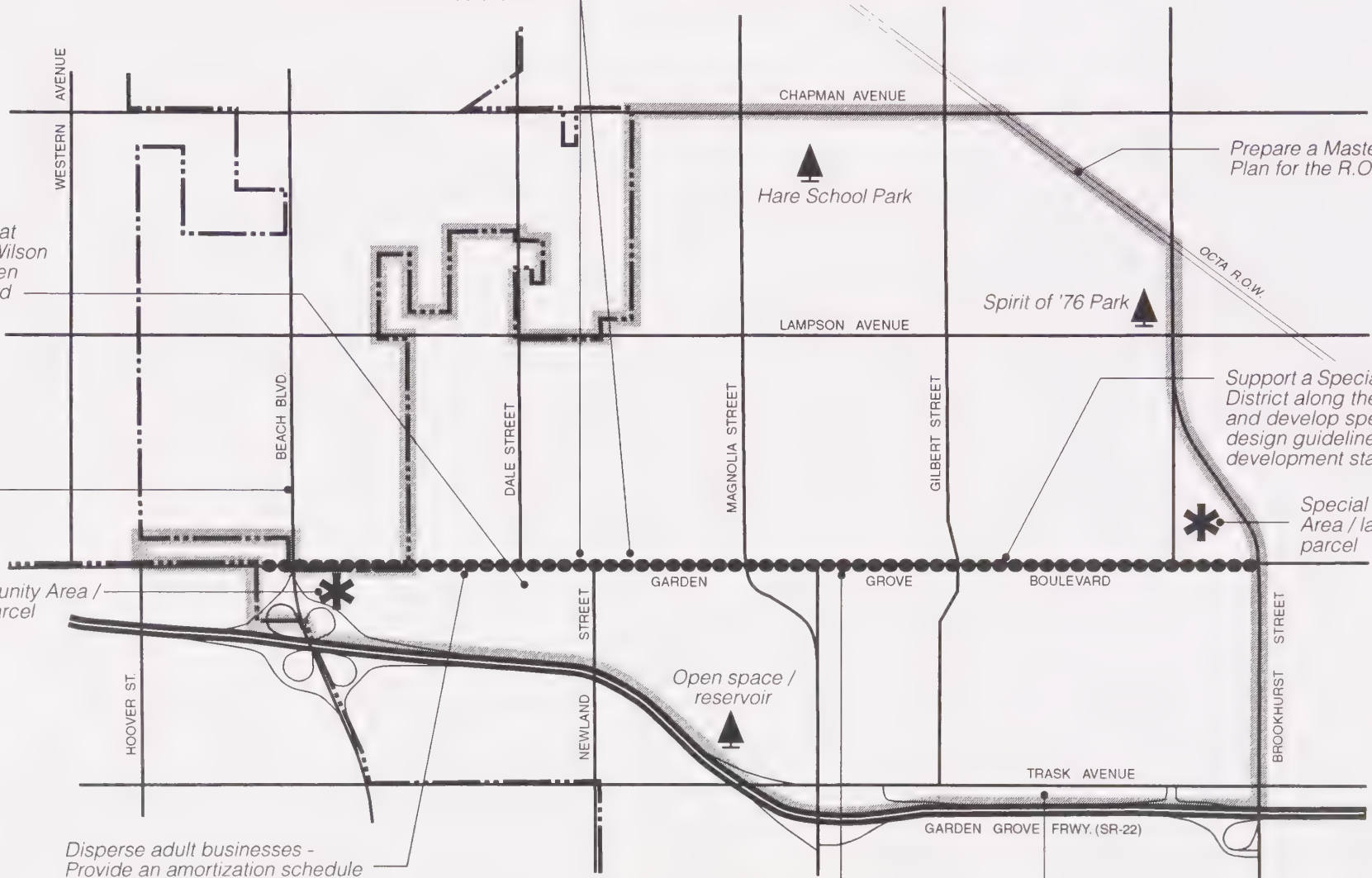
Support a Special Business District along the Corridor and develop specific design guidelines and development standards

Special Opportunity Area / large vacant parcel

Disperse adult businesses - Provide an amortization schedule for dispersion of the concentration of adult businesses

Street enhancement program

Maintain Auto Center and enhance



Robert Bein, William Frost & Associates

3-95

JN 28912-416

GENERAL PLAN PLANNING AREA
Central Garden Grove

Exhibit 8

GOALS AND POLICIES

ISSUE

Adult bookstores and bars, concentrated within one half of a mile, can be counted on Garden Grove Boulevard, between Beach Boulevard and Josephine Street. A major upsurge in the number of police calls for assistance, crimes committed and arrests made in these establishments, and in the adjoining residential neighborhoods, have made the police and the public aware that the health, safety and welfare of citizens in the Central Garden Grove Area are threatened by the location and concentration of this kind of commercial activity.

GOAL

1. Dispersal of the locations of business establishments on Garden Grove Boulevard which offer pornographic merchandise for sale or rent, in order to protect the health, safety and welfare of citizens.

POLICIES

The City should:

- 1.1 Amend the City of Garden Grove Zoning Ordinance to apply locational and land use regulation to those businesses classified as "adult use," including businesses offering pornographic and/or sexually related merchandise for sale or rent.
- 1.2 Provide an amortization schedule for the dispersion of the existing concentration of adult businesses on Garden Grove Boulevard, requiring their relocation to other appropriately - zoned sites.
- 1.3 Continue to operate a police sub-station at the current location on Garden Grove Boulevard, between Beach Boulevard and Josephine Street in order to maintain the protection of the health, safety and welfare of citizens before and during the dispersal of the concentration of adult businesses on Garden Grove Boulevard.
- 1.4 Continue to monitor and record criminal incidents at the existing, and at the relocated adult businesses as well as in residential neighborhoods adjacent to existing and relocated adult businesses.
- 1.5 Work with the City Attorney to review and interpret all legal decisions related to adult business in order to ensure that every legal measure possible is being undertaken to protect the health, safety and welfare of Garden Grove citizens without infringing on the constitutionally guaranteed rights of the proprietors of adult businesses operating within the City of Garden Grove.

ISSUE

Although the concentration of adult uses is the most visible and the most serious problem on Garden Grove Boulevard, it is by no means residents' only concern with the Area. Vacant, underused or badly maintained properties, commercial facilities stretching along the Boulevard in indistinguishable strips, and the visual barrage of uncoordinated signage all contribute to an appearance of disorder and neglect on much of Garden Grove's namesake Boulevard. These conditions must reflect on the image of the City, and the pride its citizens take in that image.

In the Central Planning Area, Garden Grove Boulevard extends between Brookhurst Avenue and Beach Boulevard. A special business district with an established character is located on this section of Garden Grove Boulevard. Although the business district is clearly identifiable, and offers the potential to attract both local and regional custom of broad diversity, little of this potential is currently realized. In part, this unrealized potential is due to: physical deterioration of some parts of the district; confusing, sometimes bewildering signage; the absence of a coordinated design interrelating separate parts of the district and providing locational guidance to individual establishments; and the lack of pathways to provide pedestrian links and access throughout the district.

GOAL

2. A balanced, prosperous and attractive corridor of land use fronting Garden Grove Boulevard, from Beach Boulevard to Brookhurst Street.

POLICIES

The City should:

- 2.1 Improve the appearance of Garden Grove Boulevard's corridor by combining, amending and adopting previous planning studies for the Boulevard area in order to provide clear and concise guidelines for the improvement of existing development and firm direction for proposed development.
- 2.2 Monitor land use and development along Garden Grove Boulevard to improve the economic viability of the Corridor. To this end, emphasis should be given to the appropriate development of large, vacant parcels and consolidation of smaller parcels.
- 2.3 Preserve existing and encourage new multi-family residential development in the Corridor in those areas where commercial activity is deemed economically infeasible. Such housing provides convenient access to Corridor jobs and activities, and supplies a resident clientele to support Corridor commercial sales and services.

- 2.4 Implement a streetscape enhancement program along the corridor.

Related goals and policies are found previously in this Element, and in the Circulation and Infrastructure, Community Design, and Economic Development Elements.

ISSUE

The dominant land use in the Central Garden Grove Planning Area is residential; low density, single-family housing interspersed with large areas of multi-family apartment structures. These neighborhoods are not only diverse in housing type, but also in their levels of maintenance. In many instances, less desirable and poorly maintained residential areas are the result of the impacts of traffic; the Planning Area is bounded and crossed by six major thoroughfares. In order to maintain the quality of life in Central Garden Grove, and to preserve residential real estate values in the Planning Area, it is necessary to work actively to restore those neighborhoods which have declined, and to preserve and protect those which still remain stable.

GOAL

3. A diversity of well-maintained and attractive residential neighborhoods in Central Garden Grove.

POLICIES

The City should:

- 3.1 Create disincentives for through traffic to use residential streets in Central Garden Grove. To this end, evaluate potential street closures along the Boulevard.
- 3.2 Continue to monitor maintenance standards in all neighborhoods. Pockets of deterioration will be prevented by firm application of code enforcement to any property which threatens the appearance and stability of its neighborhood.
- 3.3 Encourage the use of property owner and other neighborhood-based associations to reduce crime and vandalism, maintain neighborhood amenities, and provide neighborhood social support through welcoming programs for newcomers, interest group meetings, block parties and other social events.
- 3.4 Continue to provide rehabilitation assistance to those neighborhoods where it is needed with the understanding that subsequent code enforcement will be used to protect the City's investment in the area.

- 3.5 Showcase those neighborhoods which exhibit residents' pride and exemplary standards of maintenance by conducting and publicizing garden tours, house tours, Christmas decoration competitions and the like.
- 3.6 Provide buffers between intensive Boulevard uses and adjoining residential neighborhoods.

Related goals and policies are found earlier in this Element, as well as in the Housing and Community Design Elements.

ISSUE

There is one unincorporated area adjacent to the Central Planning Area. Located between Chapman and Lampson Avenues, east of Dale Street, it is an unincorporated island almost entirely surrounded by the City of Garden Grove. This island presents the City with several problems; properties in the island can be developed and used without application of City standards; island properties, neither built nor maintained to City standards, often deteriorate more rapidly, diminishing the values of adjoining properties in Central Garden Grove; and island residents may benefit from the use of City-funded facilities, without providing their share of support for those facilities with their property taxes.

GOAL

4. Resolution of the problems created by the County island adjoining Central Garden Grove.

POLICIES

The City should:

- 4.1 Work with the County of Orange to secure the City's preliminary review and counsel for all development or redevelopment proposed for the County island adjoining this Area.
- 4.2 Work with the County of Orange to require that City of Garden Grove building and development standards are met in all new development or redevelopment within the adjoining County island.
- 4.3 Work with the County of Orange to apply neighborhood housing, rehabilitation and related programs to improve deteriorated neighborhoods within the County island adjoining this Area.
- 4.4 Work with the Local Area Formation Commission (LAFCO) to encourage the annexation of the County island to the appropriate adjoining city.

Adjacent County island

Infrastructure Deficiencies

ISSUE

Inadequate capacities cause substandard performance of some infrastructure facilities in Central Garden Grove. The Central Area is bounded and crossed by eight arterial highways and the Garden Grove Freeway. A number of these roadways are congested, operating at unacceptable levels of service which causes drivers to seek speedier routes on residential streets. In addition, because of inadequate storm drainage, several of these thoroughfares and their connecting streets are vulnerable to flooding during periods of heavy rain. These infrastructure problems jeopardize the safety and convenience of residents and visitors to the Central Garden Grove Planning Area.

GOAL

5. Infrastructure adequate to provide safety and convenience to Central Garden Grove residents.

POLICIES

The City should:

- 5.1 Achieve and maintain desired levels of service on all roads and intersections in the Central Garden Grove Planning Area.
- 5.2 Improve the storm drainage in Central Garden Grove by implementing the Garden Grove Master Plan for Storm Drainage.

Related goals and policies are found in the Circulation and Infrastructure Element.

ISSUE

Beach Boulevard as a Smart Street

Beach Boulevard is designated as a Smart Street in the County of Orange Congestion Management Plan, and has been widened and improved through much of North Orange County. Additional improvements may occur in that short section of the Boulevard located in the Central Garden Grove Area. Although this is a very small part of the Planning Area, it contains the important intersection of Garden Grove Boulevard and Beach Boulevard, along with a major gateway to the City from the Garden Grove Freeway. Two prominent, underused parcels of land occupy the western corners of the intersection, and further alteration of Beach Boulevard could impact the City's marketing of these important parcels. The eastern corners of the Beach/Garden Grove Boulevard intersection are occupied by well-maintained commercial establishments which would also be seriously impacted by construction and alteration to Beach Boulevard.

GOAL

6. Beneficial application of the Beach Boulevard Smart Street program in Central Garden Grove.

POLICIES

The City should:

- 6.1 Work with the appropriate agencies to improve access to commercially zoned properties on Beach Boulevard in Central Garden Grove.

ISSUE

Garden Grove Auto Center

The Garden Grove Auto Center, with it's frontage along the Garden Grove Freeway, has proven to be an economic benefit to the City. It is estimated that sales from the Auto Center attract not only residents, but also persons residing outside the City. Business at the Auto Center generates significant sales tax revenues for the City. It is vital to the City's economic well-being that the Auto Center is maintained, and where possible, enhanced.

GOAL

7. An economically healthy Auto Center.

POLICIES

The City should:

- 7.1 Work with the Auto Center dealers to ensure their needs are met, their location retained within the Area, and their plans for expansion accommodated within the Area.
- 7.2 Market properties within the Auto Center as beneficiaries of the attractive, thriving, prosperous business community of which they are a part.

7.6 COMMUNITY CENTER

THE PLANNING AREA

The Planning Area referred to as the Community Center is bounded by the Garden Grove Freeway to the south, Brookhurst Street and the OCTA right-of-way to the west, the Brookhurst/Chapman Specific Plan area and Chapman Avenue to the north, and Ninth Street, north of Garden Grove Boulevard, to the east, while south of Garden Grove Boulevard the Planning Area extends

almost to Harbor Boulevard. Exhibit 9, *Community Center*, shows the extent of this Planning Area and its relationship to surrounding areas.

The Community Center Planning Area can be seen as the heart of Garden Grove, containing many of the City's most appealing, as well as some of its most problematic areas. The Civic Center, with City Hall, police headquarters and fire station, library, community meeting center and a popular park provides a distinctive and well-used hub for City services.

Nearby, Main Street, the theatres, Village Green and Courtyard Center are less frequented but offer a promising environment to enhance and enlarge Community Center activity. Large vacant properties on Garden Grove Boulevard hold the single most important opportunity for urban development within the City. There are many Community Center neighborhoods, both single- and multi-family, which are a source of pride to the City, while others are in danger of deterioration and blight. Similar contrasts can be found in the commercial and industrial areas of the Community Center Planning Area.

Historically, the Community Center, or Downtown was the most densely occupied area of the City, and provided economic stimuli to its outlying areas. As other office, commercial and industrial nodes have developed in other areas of the City, the economic viability of the Community Center has been threatened.

GOALS AND POLICIES

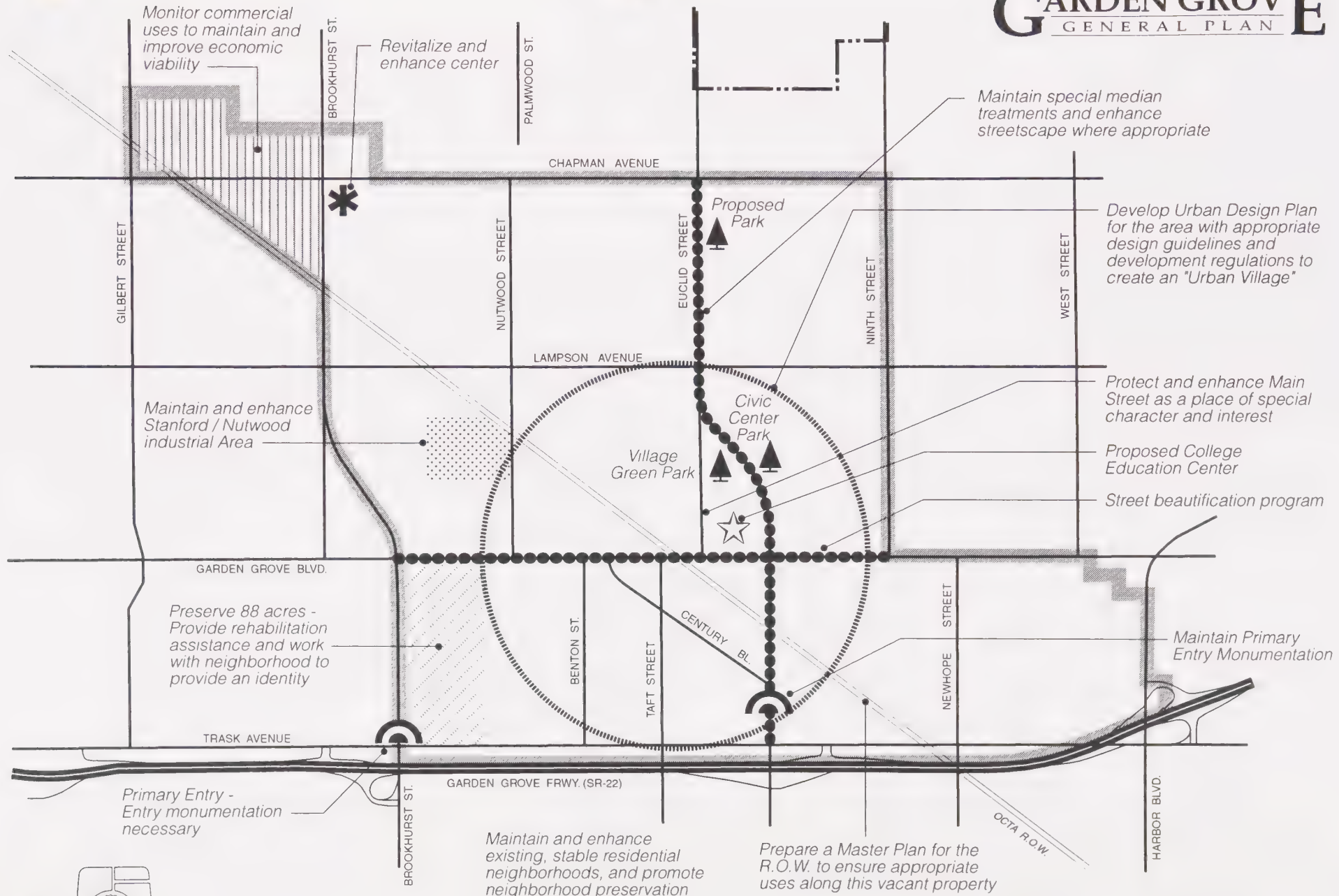
ISSUE

OCTA Right-of-Way

The vacated OCTA right-of-way enters the Community Center Area at Gilbert Street, near the Brookhurst-Chapman shopping area, then runs southeast to the Area's southern boundary at Newhope Street, near the Garden Grove Freeway. Because the right-of-way runs diagonally through virtually all of the Planning Area, its 120-foot swath of emptiness has a broad impact on the Area. In residential neighborhoods it interrupts the pleasant pattern of streets and lawns, or emphasizes the need for usable open space near apartment development. In the downtown it adds emptiness to an area which already suffers from too much vacant land. Only in two instances does it serve any use to the City: it provides land for paved parking space in the Costco development on Garden Grove Boulevard, and serves the same function at the Pavilion facility on Chapman Avenue. The OCTA right-of-way represents the waste of a valuable resource - land in Garden Grove.

GARDEN GROVE

GENERAL PLAN



Robert Bein, William Frost & Associates
3-95 JN 28912-4163

GENERAL PLAN PLANNING AREA
Community Center

Exhibit 9

GOAL

1. Restoration of the OCTA right-of-way to beneficial use.

POLICIES

The City should:

- 1.1 Prepare a Master Plan for the use of that section of the OCTA right-of-way which lies between Gilbert and Newhope Streets.
- 1.2 Work with the OCTA to ensure the proper maintenance of the right-of-way until beneficial interim uses are developed there.

Related goals and policies are found earlier in this Element and in the Circulation and Infrastructure, Community Design, and Parks, Recreation and Cultural Activities Elements.

ISSUE

A city's downtown is expected to be the most intensively active area of the city, the center of its government, shopping and service facilities. A great many cities in the nation, Garden Grove included, are experiencing difficulty in retaining this centrality for their downtowns. Outlying shopping malls, service centers and office complexes have made Garden Grove's downtown "the hole in the doughnut." Convenient automobile access and parking and less expensive land costs in the downtown is important for the Garden Grove Community Center to compete with newer commercial development, so that vacated and underused downtown properties begin to reflect decline and deterioration. Garden Grove's identity is closely linked to the character of its downtown; downtown decline damages all of the City.

GOAL

2. Restoration of the Community Center as the heart of the City.

POLICIES

The City should:

- 2.1 Develop an Urban Design Plan for the Community Center Area. This Design Plan should include applicable portions of previous planning efforts, but should supersede previous planning documents in order to clearly identify development direction in the area.
- 2.2 Maintain and enhance the centralized public function of the Civic Center.

- 2.3 Continue intensive marketing/business retention activity for the large vacant parcels in the Community Center Area.
- 2.4 Continue the protection of Main Street, between Garden Grove Boulevard and Acacia Parkway, as "a place of special character, historical and aesthetic interest and value."
- 2.5 Upgrade that portion of Euclid Street which serves as the primary entry to the Community Center.
- 2.6 Improve the declining and deteriorating properties fronting on Garden Grove Boulevard, between Brookhurst Street and Ninth Street in the Community Center Area.
- 2.7 Establish a Special Study Area for the area bounded by Euclid Street, Trask Avenue, Sandra Place and the OCTA R.O.W. The purpose of the Special Study (i.e., Strategic Plan, Specific Plan, Area Plan, etc.) would be to evaluate the potential for the extension of Century Boulevard from Euclid Street to the on/off-ramps of the Garden Grove Freeway along Trask Avenue. Land uses within the Study Area will also be evaluated with the impacts resulting from the realignment analyzed.

Related goals and policies are found in the Community Design and Economic Development Elements and in the "Community Center Specific Plan."

ISSUE

Brookhurst/Chapman

The Brookhurst/Chapman redevelopment area projects offered attractive modern facilities to shoppers and, when they were first completed, successfully achieved commercial vitality in that area of the City. Recently, however, two issues have shadowed those achievements: first, the on-going economic recession in Southern California has caused numerous vacancies in the major shopping centers, threatening their economic vitality; and second, the shopping center located at the southeast corner of the Brookhurst Street/Chapman Avenue intersection remains unimproved and detracts from the appearance, attraction and economic viability of the Brookhurst/Chapman commercial area.

GOAL

3. Maintenance and completion of the redevelopment of the Brookhurst/Chapman commercial area.

POLICIES

The City should:

*Stanford/Nutwood
Industrial Area*

- 3.1 Monitor existing and proposed commercial uses within the Brookhurst/Chapman area to maintain and improve its economic viability.
- 3.2 Work with the property owners of the Brookhurst/Chapman intersection's southeast corner to revitalize their commercial properties.

Related goals and policies are found previously in this Element, as well as in the Economic Development and the Community Design Elements.

ISSUE

The industrial area located west of Nutwood Street and contiguous to Stanford Avenue is one of the original industrial sites in the City. Over the years it has become overcrowded, and it no longer meets City standards for parking, screening, setbacks or landscaping. While the area has value in its potential service as a relatively inexpensive start-up site for small businesses and industries, it also exacts costs from its neighbors. Because of the intensity of activity and its unattractive appearance, this industrial area threatens to spread blighting influences to adjoining residential neighborhoods as well as the commercial enterprises adjacent.

GOAL

4. The Stanford/Nutwood industrial area as an asset to the City.

POLICIES

The City should:

- 4.1 Amend Title 9 of the City of Garden Grove Municipal Code to require M-1 and M-P development to have setbacks, landscaping and other amenities desirable in suburban industrial sites.
- 4.2 Consider using redevelopment authority, rehabilitate the Stanford/Nutwood industrial area.
- 4.3 Enforce the zoning code to confine all industrial activity within the area zoned for industrial uses in the Stanford/Nutwood area.
- 4.4 Where possible, provide landscaped buffer areas between the Stanford/Nutwood industrial area and adjacent residential and Community Center areas.
- 4.5 To encourage new employment opportunities, consider the formation of an "Industrial Incubator" facility in the Stanford/Nutwood industrial area.

Related goals and policies are found in the Community Design and Economic Development Elements.

ISSUE

Land use in the Community Center Planning Area, as in all of Garden Grove, is dominated by residential use. The Area displays a host of attractive, beautifully maintained single family neighborhoods, particularly in its northern sections. Some multi-family housing complexes, including that for senior citizens, are models of good design and good management. There are, however, a number of exceptions to these high residential standards within the Planning Area. Declining neighborhoods, without supportive direction, can be detrimental to adjacent, currently stable, residential areas while, in themselves, offering substandard living conditions to their residents.

GOAL

5. Preservation and enhancement of all residential areas within the Community Center Planning Area.

POLICIES

The City should:

- 5.1 Create disincentives for through traffic to use residential streets in the Community Center area.
- 5.2 Continue to monitor maintenance standards in all neighborhoods. Pockets of deterioration will be prevented by firm application of code enforcement to any property which threatens the appearance and stability of its neighborhood.
- 5.3 Encourage the use of property owner and other neighborhood-based associations to reduce crime and vandalism, maintain neighborhood amenities, and provide neighborhood social support through welcoming programs for newcomers, interest group meetings, block parties and other social events.
- 5.4 Continue to provide rehabilitation assistance to those neighborhoods where it is needed with the understanding that subsequent code enforcement will be used to protect the City's investment in the area.
- 5.5 Showcase those neighborhoods which exhibit residents' pride and exemplary standards of maintenance by conducting and publicizing garden tours, house tours, Christmas decoration competitions and the like.

Related goals and policies are found earlier in this Element, as well as in the Housing and Community Design Elements.

88 Acres

ISSUE

Between Brookhurst and Cypress Streets, Garden Grove Boulevard and Trask Avenue lies a residential neighborhood that is unique in Garden Grove, and to Garden Grove. Often called "88 Acres," this neighborhood is one of the oldest in the City. Mature trees, gardens and small houses give the neighborhood the charm of intimate scale and, with municipal attention and support, 88 Acres could become one of the most desirable addresses in the City. The neighborhood is, however, bounded by three arterial highways and the intensive commercial activities fronting them. In addition, multi-family zoning on many of the lots now occupied by old single-family houses threatens to destroy the scale and pattern of the area.

GOAL

6. Preservation of 88 Acres.

POLICIES

The City should:

- 6.1 Review and amend the zoning for 88 Acres to protect its unique qualities.
- 6.2 Encourage and, whenever feasible, assist in the relocation of heavy commercial or light industrial uses (e.g. automotive repair, upholstery shops, etc.) from the perimeter of 88 Acres to other, more appropriate, areas of the City.
- 6.3 Construct sidewalks, parkways and install street lights on the wider streets in 88 Acres, using the borders of the right-of-way for the new facilities, thus narrowing the streets to discourage through traffic while improving the area's amenities.
- 6.4 Monitor the Trask Avenue widening project to ensure that the 88 Acres' southern boundary is buffered against the impacts of increased traffic on Trask Avenue.
- 6.5 Create disincentives for through traffic to use 88 Acres' streets.
- 6.6 Continue to monitor maintenance standards in 88 Acres. Pockets of deterioration will be prevented by firm application of code enforcement to any property which threatens the appearance and stability of 88 Acres.

- 6.7 Encourage the use of property owner and other neighborhood-based associations to reduce crime and vandalism, maintain neighborhood amenities, and provide neighborhood social support through welcoming programs for newcomers, interest group meetings, block parties and other social events.
- 6.8 Provide rehabilitation assistance where it is needed in 88 Acres, with the understanding that subsequent code enforcement will be used to protect the City's investment in the area.

Related goals and policies are found earlier in this Element, as well as in the Housing and Community Design Elements.

ISSUE

Trask Avenue

Trask Avenue is to be widened so that it becomes a four-lane highway from Newhope Street to Brookhurst Street. Drainage will be improved, utility lines will be undergrounded, and turn pockets, bicycle lanes and sidewalks will add to the improvements. Although these changes will greatly increase the level of service for Trask Avenue traffic, and enhance access to the automobile sales center, care will have to be taken to protect the residential land uses to the north of the Trask Avenue widening, and to improve the quality and compatibility of many of the land uses which are located between Trask Avenue and the Garden Grove Freeway.

GOAL

- 7. Maximum benefit from the Trask Avenue widening project.

POLICIES

- 7.1 Retain the residential character of land uses north of the Trask Avenue widening project, while improving and converting land uses south of Trask Avenue to compatible non-residential use.
- 7.2 Ensure traffic safety on Trask Avenue.

Related goals and policies can be found earlier in this Element, and in the Circulation and Infrastructure, Community Design and Economic Development Elements.

7.7 NORTHEAST/HARBOR

THE PLANNING AREA

The Northeast/Harbor Planning Area is defined by the City's incorporation boundaries to the north and to the east, the Garden Grove Freeway forms the

southern boundary, and the eastern boundary extends along Ninth Street (north of Garden Grove Boulevard) and immediately west of Harbor Boulevard (south of Garden Grove Boulevard). Exhibit 10, *Northeast/Harbor*, shows the extent of this Planning Area and its relationship to the surrounding areas.

Just as Garden Grove Boulevard provides visual identity for the City for east-west travellers, so Harbor Boulevard is the most distinctive of Garden Grove's streets for north-south travel. This is particularly true for visitors to Disneyland and the Anaheim Convention Center. It will become even more evident with the planned expansion of these Anaheim attractions, and the relocation of access to Disneyland. Crystal Cathedral, the Garden Grove Hospital and the Hyatt Alicante Hotel reinforce the City's identity along the Harbor Corridor. A major issue in the Northeast/Harbor Area is the redevelopment of the Harbor Corridor as an attraction for tourists and visitors while protecting adjoining residential areas from the impacts of that development.

GOALS AND POLICIES

ISSUE

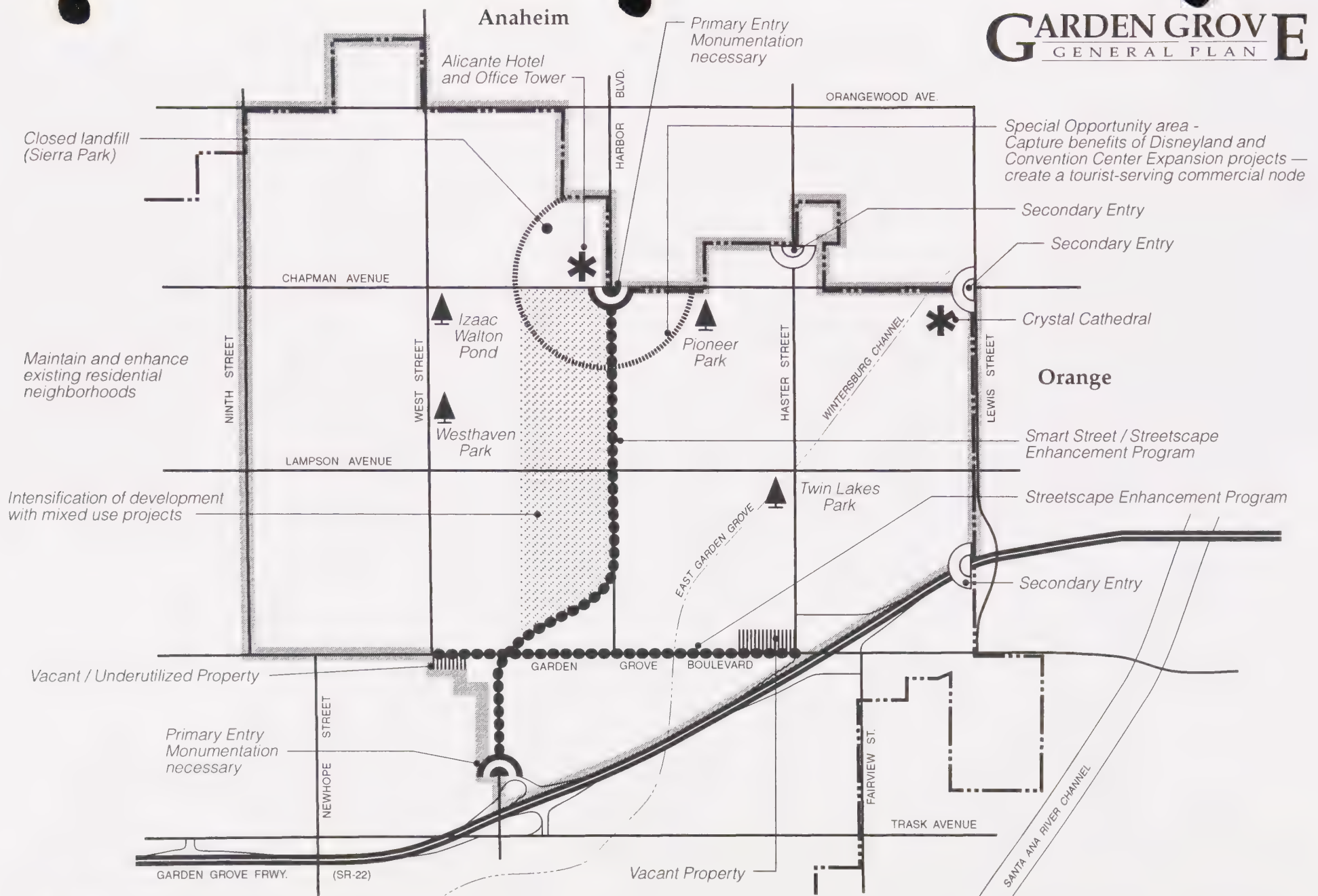
Harbor Boulevard, and the land adjoining it, have received intensive planning attention in Garden Grove. Recognizing the area's critical importance, the City commissioned the Harbor Corridor Specific Plan and approved it in 1985. The Specific Plan was effective in the revitalization of a number of areas along the Corridor, however, due to changing market conditions, the potential Disneyland and Convention Center expansions, the Plan should be significantly amended or retired.

More recently, the City invited the American Institute of Architects to send a team of urban design professionals to study Garden Grove's Harbor Corridor and make recommendations for its further development and improvement. This report, with recommendations, was submitted to the City in 1994. In general, the R/UDAT Report supports the provisions of the former Specific Plan but makes specific recommendations for intensification of uses at the Corridor's northern terminus with the City of Anaheim boundary, and its southern intersection with Garden Grove Boulevard.

In addition to these plans, Harbor Boulevard has been designated as a Smart Street, with plans to expand its capacity and improve its level of service.

GOAL

1. A Harbor Corridor/Garden Grove Boulevard Urban Design Plan to benefit all of the City of Garden Grove.



GENERAL PLAN PLANNING AREA
Northeast / Harbor



POLICIES

The City should:

- 1.1 Develop and adopt an Urban Design Plan for the Harbor Corridor and Garden Grove Boulevard in the vicinity of the Corridor. This Design Plan should incorporate the findings and recommendations of previous plans, as applicable; however, it should supersede all previous plans in order to clearly identify development direction in the area.
- 1.2 Capture the benefits of the tourist trade generated by Disneyland and the Anaheim Convention Center.
- 1.3 Support and enhance the three commercial centers at the intersection of Harbor Boulevard and Garden Grove Boulevard.
- 1.4 Exploit the opportunities offered by the properties located between Harbor Plaza and the Garden Grove Freeway.
- 1.5 Address underused and deteriorated commercial properties located in the area on Garden Grove and Harbor Boulevards.
- 1.6 With the advice of Hospital administrators, improve the supportive facilities surrounding the Garden Grove Hospital and Medical Arts Center in the vicinity of Garden Grove Boulevard and Palm Street.
- 1.7 Work with the appropriate agencies to ensure that the Smart Street designation for Harbor Boulevard provides maximal benefits to the City and accords with the Urban Design Plan for the area.
- 1.8 Establish a Special Study Area to include West and Buaro Streets, north of Lampson Avenue, and the surrounding neighborhoods. The purpose of the Special Study (i.e., Strategic Plan, Specific Plan, Area Plan, etc.) would be to evaluate the potential for the realignment of West and Buaro Streets (similar to that alignment identified on Exhibit 3, *Alternative D - Modified Proposed Plan 2, in Appendix A*, and what was identified in the R/UDAT Study). Land uses within the Study Area should also be evaluated with the impacts resulting from the realignment analyzed.

Related goals and policies will be found earlier in this Element, the Circulation and Infrastructure, Community Design, Housing and Economic Development Elements, and in the Harbor Corridor Specific Plan.

ISSUE

Although the planning focus in the Northeast/Harbor Planning Area is on the large area included in the Harbor Corridor, this represents only a portion of the geographical extent of the Planning Area. North of Garden Grove Boulevard,

*Neighborhood
Preservation*

between Ninth Street and the Harbor Corridor, the area is solidly residential, most of it zoned for and occupied by single-family housing, interspersed with a few multi-family areas. North of the Garden Grove Freeway and west of the Harbor Corridor, the dominant land use remains residential, but there is a far higher proportion of multifamily units. As in many other planning areas, there is a range of neighborhood conditions to be found in the Northeast/Harbor Area. Although the great majority of neighborhoods are well-maintained, desirable living areas, there are some problem areas. Most of the problematical conditions are located in, or near the higher density multi-family zones. In some cases these neighborhoods have become overcrowded with residents and their automobiles, maintenance may be sub-standard, and criminal activity threatens neighborhood security.

GOAL

2. Safe, secure and pleasant neighborhoods throughout the Northeast/Harbor Planning Area.

POLICIES

- 2.1 Create disincentives for through traffic to use residential streets in the Northeast/Harbor Planning Area.
- 2.2 Encourage the prohibition of twenty-four hour parking on residential streets.
- 2.3 Continue to monitor maintenance standards in all neighborhoods. Pockets of deterioration will be prevented by firm application of code enforcement to any property which threatens the appearance and stability of its neighborhood.
- 2.4 Identify the homes of those elderly occupants who are unable, physically and/or financially to maintain their residences. Using set-aside or other appropriate funding, assist in the maintenance or improvement of such housing.
- 2.5 Encourage the use of property owner and other neighborhood-based associations to reduce crime and vandalism, maintain neighborhood amenities, and provide neighborhood social support through welcoming programs for newcomers, interest group meetings, block parties and other social events.
- 2.6 Continue to provide rehabilitation assistance to those neighborhoods where it is needed with the understanding that subsequent code enforcement will be used to protect the City's investment in the area.

- 2.7 Showcase those neighborhoods which exhibit residents' pride and exemplary standards of maintenance by conducting and publicizing garden tours, house tours, Christmas decoration competitions and the like.

Related goals and policies are found earlier in this Element, as well as in the Housing and Community Design Elements.

7.8 SOUTHWEST GARDEN GROVE

THE PLANNING AREA

Southwest Garden Grove consists of that area south of the Garden Grove Freeway, bounded by the City limits to the west and to the south, and by Brookhurst Street to the east. Exhibit 11, *Southwest Garden Grove*, shows the extent of this Planning Area and its relationship to the surrounding areas.

Southwest Garden Grove lies south of the Garden Grove Freeway, but its proximity to the Civic Center, as well as broad and convenient north-south freeway underpasses, mitigates any sense of separation of the Area from the City as a whole. The Planning Area continues the City's dominant pattern of single-family residences interspersed with islands of higher density housing. This small Planning Area is unusually well endowed with open space, containing the well-used Garden Grove Park and Atlantis Play Center, the Bolsa Grande High School campus and several smaller school/park sites. Issues in Southwest Garden Grove are mainly concerned with the potential deterioration of underused commercial sites, and the negative effects of these sites on the adjoining neighborhoods.

GOALS AND POLICIES

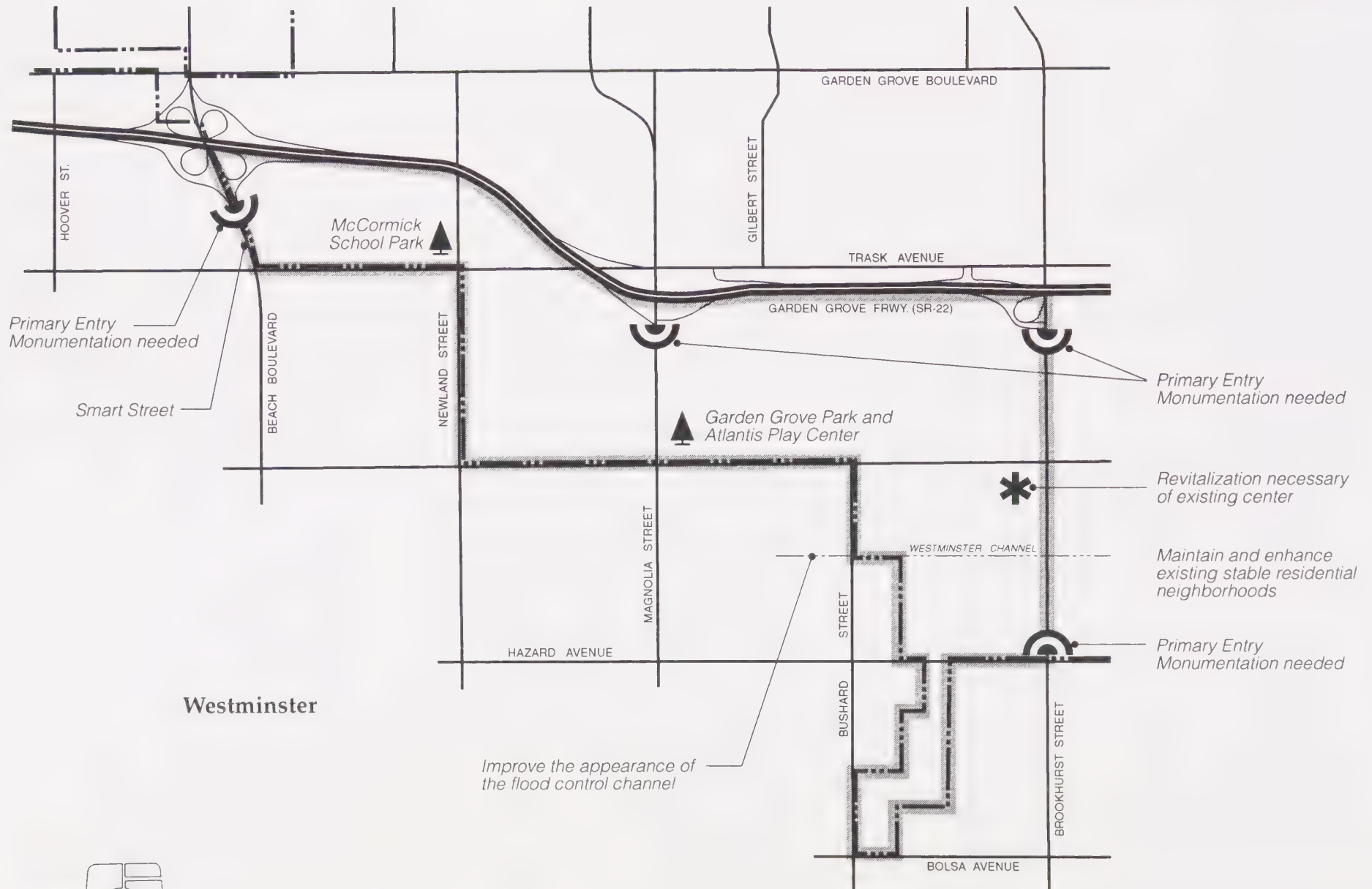
ISSUE

Garden Grove Park, and the Atlantis Play Center within it, are City treasures. The Play Center holds memories of little children's birthday parties and other happy events for many young adults in the Los Angeles metropolitan region. Atlantis Play Center is among the most positive elements in Garden Grove's image, and succeeding generations of children delighting in it will continue to strengthen the City's family-centered traditions.

Garden Grove Park is the largest and most heavily used park in the City. In conjunction with the adjacent Bolsa Grande High School campus, it provides a significant area of green open space within the City. Careful maintenance,

*Garden Grove Park and
Atlantis Play Center*

GARDEN GROVE GENERAL PLAN



Westminster

GENERAL PLAN PLANNING AREA
Southwest Garden Grove



a multitude of active recreational facilities and generous areas for passive recreation have ensured the Park's popularity in the past, and it is most important to the City that these amenities are maintained and enhanced.

GOAL

1. Preservation of Garden Grove Park, and the Atlantis Play Center within it.

POLICIES

The City should:

- 1.1 Maintain citizens' attendance and use of Garden Grove Park facilities and activities.
- 1.2 Maintain the traditional uses of Atlantis Play Center.

ISSUE

The dominant land use in Southwest Garden Grove is residential, with well-maintained neighborhoods setting the character of the Planning Area. Several of the commercial centers which serve Southwest Garden Grove, however, do not reflect this character. Without remedial action to correct littered, shabby and aging commercial areas, they will affect adjoining residential neighborhoods with spreading deterioration.

GOAL

2. Prosperous and attractive commercial centers in Southwest Garden Grove.

POLICIES

The City should:

- 2.1 Enforce City codes in all commercial sites in Southwest Garden Grove.
- 2.2 Work with property owners of marginally successful commercial developments to improve their properties.
- 2.3 Work with the Garden Grove Police Department to improve security in those commercial centers in which there have been disturbances to the public peace.
- 2.4 Capitalize on the growth of commercial enterprises on Brookhurst Street.

*Commercial Center
Enhancement*

- 2.5 Provide lateral access between adjoining parking lots on Brookhurst Street.
- 2.6 Focus redevelopment effort on the commercial site located at the southwest corner of Westminster Avenue and Brookhurst Street.

ISSUE

There are many well-maintained, and attractive residential areas in Southwest Garden Grove. As in the rest of the City, single-family, low density neighborhoods predominate, but several neighborhoods containing multi-family housing also display exemplary maintenance and good design. It is important to support this quality of residential life in the City, and to address those neighborhoods in which the first indications of deterioration are visible.

GOAL

- 3. Safe, secure and pleasant neighborhoods throughout Southwest Garden Grove.

POLICIES

The City should:

- 3.1 Create disincentives for through traffic to use residential streets in the Southwest area.
- 3.2 Prohibit twenty-four hour parking on residential streets.
- 3.3 Review multi-family development standards to ensure adequacy of off-street parking areas for stored vehicles, including trucks, boats, land cruisers and other oversize vehicles.
- 3.4 Continue to monitor maintenance standards in all Southwest Garden Grove neighborhoods. Pockets of deterioration will be prevented by firm application of code enforcement to any property which threatens the appearance and stability of its neighborhood.
- 3.5 Identify the homes of those elderly occupants who are unable, physically and/or financially to maintain their residences. Using set-aside or other appropriate funding, assist in the maintenance or improvement of such housing.
- 3.6 Encourage the use of property owner and other neighborhood-based associations to reduce crime and vandalism, maintain neighborhood amenities, and provide neighborhood social support through welcoming programs for newcomers, interest group meetings, block parties and other social events.

- 3.7 Continue to provide rehabilitation assistance to those neighborhoods where it is needed with the understanding that subsequent code enforcement will be used to protect the City's investment in the area.
- 3.8 Showcase those neighborhoods which exhibit residents' pride and exemplary standards of maintenance by conducting and publicizing garden tours, house tours, Christmas decoration competitions and the like.

ISSUE

The Westminster Flood Control Channel runs east/west through the Southwest Area near Thirteenth Street. Residents whose properties abut the Channel complain that it is not properly landscaped, screened and maintained so that the Channel has unnecessarily negative impacts on residents' enjoyment of their homes and the value of their properties.

GOAL

- 4. Westminster Flood Control Channel as an aesthetic amenity in Southwest Garden Grove.

POLICIES

The City should:

- 4.1 Work with concerned citizens and the Orange County Flood Control District to improve the appearance of the Westminster Flood Control Channel without impairing its functional efficiency.

Related goals and policies are found earlier in this Element, as well as in the Housing and Community Design Elements.

ISSUE

The City of Westminster's General Plan suggests the annexation of a portion of Garden Grove to Westminster in order to expand the Little Saigon commercial area along Bolsa Avenue. The portion of Garden Grove that Westminster is interested in annexing lies between Bolsa and Hazard Avenues, with Bolsa Avenue and Washington Street forming a stepped southern boundary, Bushard Avenue the western boundary, Hazard Avenue on the north and Cork Street on the east. The area contains single-family housing, an elementary school, a mobile home park and a commercial center at the corner of Bushard Street and Bolsa Avenue.

Flood Control Channels

*Potential Annexation and
De-annexation Areas*

In exchange for this Garden Grove area, the City of Westminster would offer to de-annex an approximately equal area of land for annexation to the City of Garden Grove. The area Westminster proposes for annexation to Garden Grove lies south of Garden Grove Boulevard, north of the Garden Grove Freeway, east of Knott Street and west of Beach Boulevard.

GOAL

5. Rationalized City boundaries.

POLICIES

The City should:

- 5.1 Fully investigate all effects of any proposed change to the incorporated area of the City of Garden Grove.
- 5.2 Complete all exchanges of land with contiguous cities as well as annexations of County islands which will rationalize and clarify City boundaries and will provide minimal costs and maximal benefits to the City of Garden Grove.

ISSUE

Infrastructure Deficiencies

Inadequate capacities cause substandard performance of some infrastructure facilities in Southwest Garden Grove. The Southwest Area is bounded on the north by the Garden Grove Freeway, and is crossed by a major arterial, with a second arterial forming part of its eastern boundary. A number of these roadways are congested, operating at unacceptable levels of service which causes drivers to seek speedier routes on residential streets. In addition, because of inadequate storm drainage, several of these thoroughfares and their connecting streets are vulnerable to flooding during periods of heavy rain. These infrastructure problems jeopardize the safety and convenience of residents and visitors to the Southwest Planning Area.

GOAL

6. Infrastructure adequate to provide safety and convenience to Southwest Garden Grove residents.

POLICIES

The City should:

- 6.1 Achieve and maintain desired levels of service on all roads and intersections in the Southwest Garden Grove Area.

- 6.2 Improve the storm drainage in Southwest Garden Grove by implementing the Garden Grove Master Plan for Storm Drainage.

Related goals and policies are found in the Circulation and Infrastructure Element.

7.9 BROOKHURST/EUCLID

THE PLANNING AREA

The Brookhurst/Euclid Planning Area is bounded by Brookhurst Street to the west, the Garden Grove Freeway to the north, Euclid Street to the east and the City's incorporation boundaries to the south. Exhibit 12, *Brookhurst/Euclid*, shows the extent of the Planning Area and its relationship to the surrounding areas.

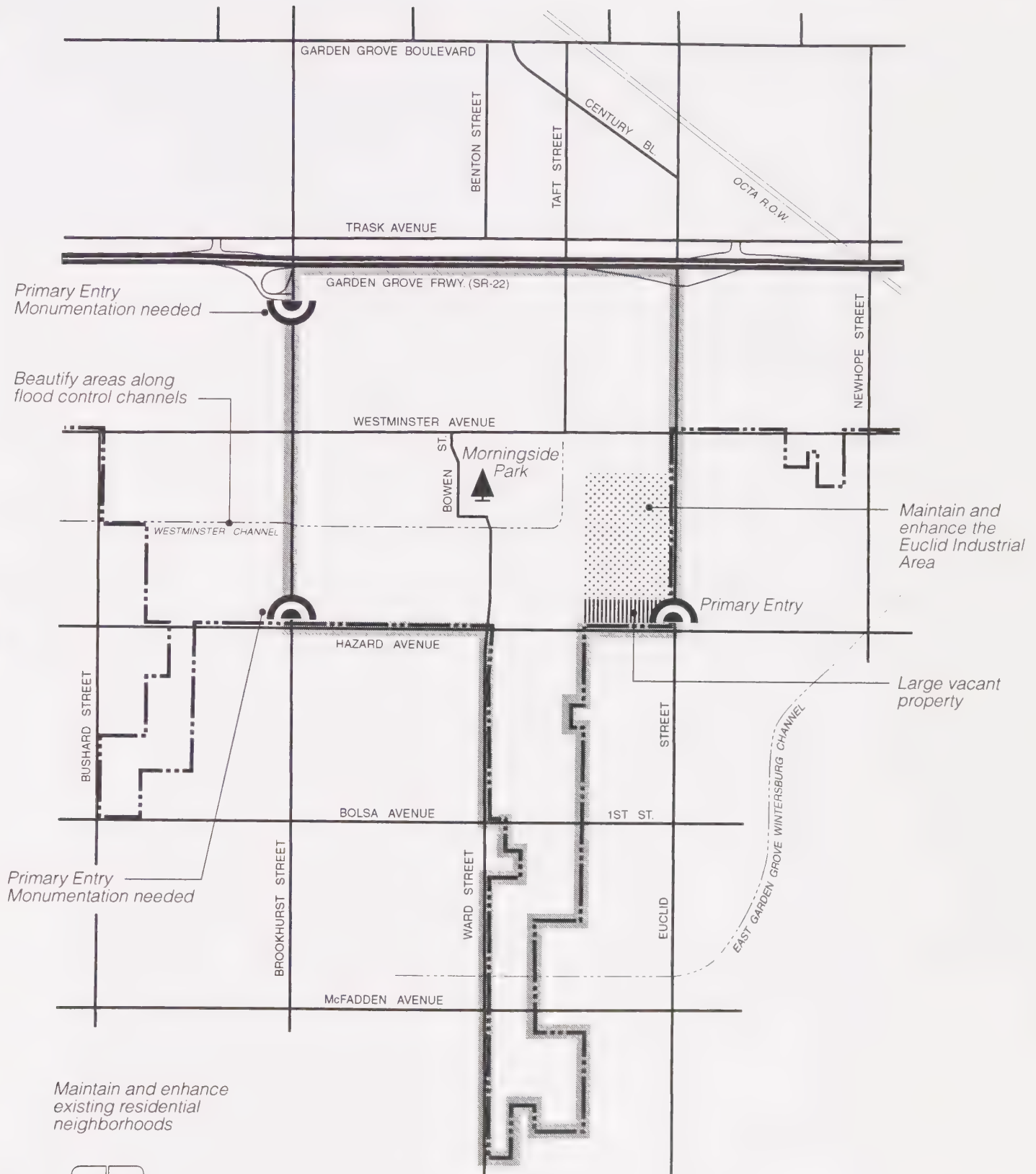
The Brookhurst/Euclid Area is primarily a residential area lying south of the Garden Grove Freeway. Freeway underpasses link the Planning Area to the City at Brookhurst and Euclid Streets, the eastern and western boundaries of the Area. South of Hazard Avenue a long, narrow peninsula of incorporated Garden Grove extends southward to Margarita Avenue, lying generally between Ward and Cooper Streets. Residents of this peninsular are somewhat isolated from the main body of their City, and the facilities of the adjoining cities of Santa Ana and Westminster are much closer and accessible to them than similar facilities in Garden Grove. There are a number of stable, well maintained single-family neighborhoods in the Planning Area. Many of these neighborhoods are buffered from commercial and industrial zones by multi-family residential units. Brookhurst/Euclid issues have arisen from several of its commercial and industrial areas in which maintenance is poor, and the effects of graffiti and other vandalism are visible. Property neglect and crime in some nonresidential areas have blighted the well-being of several of the residential communities in this Area, and pose a threat to other stable and attractive Brookhurst/Euclid neighborhoods.

GOALS AND POLICIES

ISSUE

The dominant land use in the Brookhurst/Euclid Area is single-family residential, as is true throughout Garden Grove. Many of these neighborhoods offer attractive, well maintained living environments, but there are some in which signs of dilapidation, such as deferred maintenance and graffiti, are becoming evident. It is important to the City's image as a desirable residential community to address these deteriorating properties.

*Neighborhood
Preservation*



Fountain Valley

GENERAL PLAN PLANNING AREA
Brookhurst / Euclid



GOAL

1. Safe, secure and attractive neighborhoods throughout the Brookhurst/Euclid Planning Area.

POLICIES

The City should:

- 1.1 Create disincentives for through traffic to use residential streets in the Brookhurst/Euclid area.
- 1.2 Prohibit twenty-four hour parking on residential streets.
- 1.3 Review residential development standards to ensure adequacy of off-street parking areas for stored vehicles, including trucks, boats, land cruisers and other oversize vehicles.
- 1.4 Continue to monitor maintenance standards in all Brookhurst/ Euclid neighborhoods. Pockets of deterioration will be prevented by firm application of code enforcement to any property which threatens the appearance and stability of its neighborhood.
- 1.5 Encourage the use of property owner and other neighborhood-based associations to reduce crime and vandalism, maintain neighborhood amenities, and provide neighborhood social support through welcoming programs for newcomers, interest group meetings, block parties and other social events.
- 1.6 Continue to provide rehabilitation assistance to those neighborhoods where it is needed with the understanding that subsequent code enforcement will be used to protect the City's investment in the area.
- 1.7 In accord with the Community Design Element, require that all parts of the Euclid Industrial Park visible from residential properties be attractively screened and landscaped.
- 1.8 Showcase those neighborhoods which exhibit residents' pride and exemplary standards of maintenance by conducting and publicizing garden tours, house tours, Christmas decoration competitions and the like.

ISSUE

The major arterials crossing or bounding the Brookhurst/Euclid Area support significant commercial activity, as well as one large industrial site. In the main, the commercial centers are well-maintained and attractive, but there are several marginal properties, significant vacant sites and some opportunity for the City to improve the streetscape and the infrastructure affecting non-residential facilities.

GOAL

2. Prosperous and attractive commercial and industrial sites throughout the Brookhurst/Euclid Area.

POLICIES

The City should:

- 2.1 Enforce City codes in all commercial sites in the Brookhurst/Euclid Area.
- 2.2 Work with property owners of vacant commercially-zoned property to develop their sites in appropriate, economically viable projects.
- 2.3 Work with property owners of marginally successful commercial developments to improve their properties.
- 2.4 Work with the Garden Grove Police Department to improve security in and around those commercial and industrial facilities in which there have been disturbances to the public peace.
- 2.5 Work with the Garden Grove Unified School District and the Garden Grove Community Services Department to provide after-school activities for the groups of young people who loiter near La Quinta High School and the Euclid Industrial Park.
- 2.6 Provide lateral access between adjoining parking lots on arterial roads in the Brookhurst/Euclid Area.
- 2.7 Support the commercial enterprises in the Brookhurst/Euclid Area with improved design of public facilities.
- 2.8 Work with the property owners of the Euclid Industrial Park to improve the appearance and function of the site, and to mitigate its negative effects on adjoining residential areas.

City Boundaries

ISSUE

The long and narrow peninsula of incorporated Garden Grove which extends south from Hazard Avenue to Margarita Avenue offers some problems for the City: it is inefficient to service the area because of its distance from central facilities, and residents of the peninsula find that their access to shopping, recreation and public services is often more conveniently realized in the adjoining cities of Westminster and Santa Ana than in Garden Grove.

GOAL

3. Rationalized City boundaries.

POLICIES

The City should:

- 3.1 Fully investigate all effects of de-annexing the peninsula of Garden Grove land lying between Hazard Avenue and Margarita Avenue.
- 3.2 Complete all exchanges of land with contiguous cities as well as annexations of County islands which will rationalize and clarify City boundaries and will provide minimal costs and maximal benefits to the City of Garden Grove.

ISSUE

The Westminster Flood Control Channel runs east/west through the Brookhurst/Euclid Area near Thirteenth Street. Residents whose properties abut the Channel complain that it is not properly landscaped, screened and maintained so that the Channel has unnecessarily negative impacts on residents' enjoyment of their homes and the value of their properties.

GOAL

4. Flood Control Channels as aesthetic amenities in the Brookhurst/Euclid Planning Area.

POLICIES

The City should:

- 4.1 Work with concerned citizens and the Orange County Flood Control District to improve the appearance of the flood control channels without impairing their functional efficiency.

Flood Control Channels

Related goals and policies are found earlier in this Element, as well as in the Housing and Community Design Elements.

ISSUE

Infrastructure Deficiencies

Inadequate capacities cause substandard performance of some infrastructure facilities in the Brookhurst/Euclid Planning Area. The Planning Area is bounded on the north by the Garden Grove Freeway, and is bounded and crossed by several major arterials. A number of these roadways are congested, operating at unacceptable levels of service which causes drivers to seek speedier routes on residential streets. In addition, because of inadequate storm drainage, several of these thoroughfares and their connecting streets are vulnerable to flooding during periods of heavy rain. These infrastructure problems jeopardize the safety and convenience of residents and visitors to the Brookhurst/Euclid Planning Area.

GOAL

5. Infrastructure adequate to provide safety and convenience to Brookhurst/Euclid Area residents.

POLICIES

The City should:

- 5.1 Achieve and maintain desired levels of service on all roads and intersections in the Brookhurst/Euclid Area.
- 5.2 Improve the storm drainage in the Brookhurst/Euclid Area by implementing the Garden Grove Master Plan for Storm Drainage.

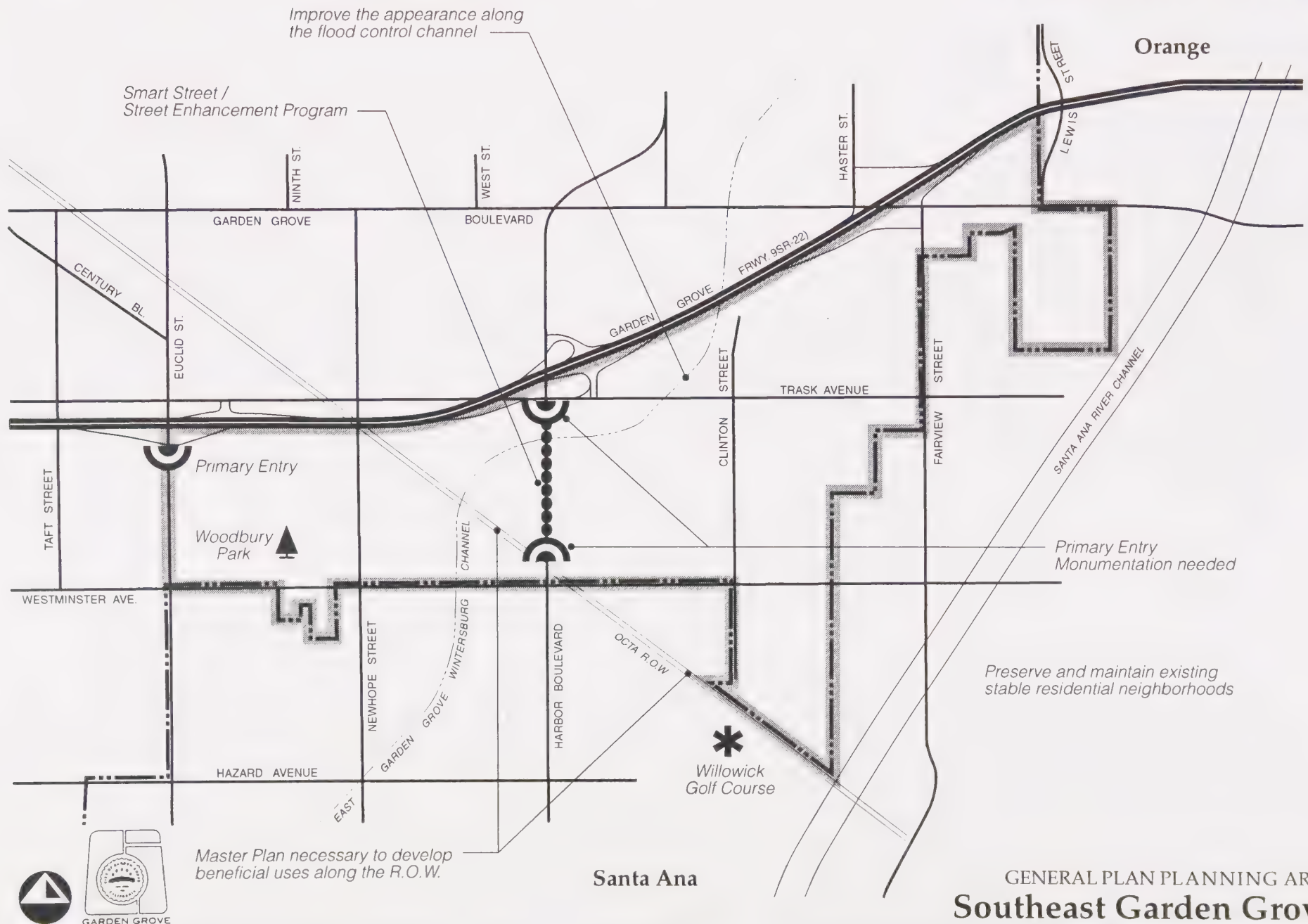
Related goals and policies are found in the Circulation and Infrastructure Element.

7.10 SOUTHEAST GARDEN GROVE

THE PLANNING AREA

Southeast Garden Grove is bounded by Euclid Street to the west, the Garden Grove Freeway to the north, and the City's incorporation boundaries to the east and to the south. Exhibit 13, *Southeast Garden Grove*, shows the extent of this Planning Area and its relationship to the surrounding areas.

The largest portion of land in Southeast Garden Grove is devoted to single-family housing, but the Planning Area also includes the second largest industrial development in Garden Grove, strip commercial on Westminster Avenue, Harbor and Garden Grove Boulevards, and several large apartment



areas including Buena Clinton, probably the most populous of Garden Grove's residential communities. Issues of neighborhood stability and of the economic viability of some of the industrial area and many of the strip commercial areas are important in Southeast Garden Grove.

GOALS AND POLICIES

ISSUE

Residential neighborhoods in Southeast Garden Grove occupy the largest proportion of land within the Planning Area. Many of these neighborhoods are attractive and well-maintained, enjoying the benefits of proximate open space offered by school sites and buffered from the impacts of freeway traffic and the extensive industrial and commercial sites nearby. Other residential areas are not as fortunate and show some deterioration. As is true City-wide, the stability of every neighborhood is important of itself, for the well-being of its residents, and important for its impact on surrounding areas and on the image of the City as a whole.

GOAL

1. Safe, secure and attractive neighborhoods throughout Southeast Garden Grove.

POLICIES

The City should:

- 1.1 Create disincentives for through traffic to use residential streets in Southeast Garden Grove.
- 1.2 Prohibit twenty-four hour parking on residential streets.
- 1.3 Review residential development standards to ensure adequacy of off-street parking areas for stored vehicles, including trucks, boats, land cruisers and other oversize vehicles.
- 1.4 Continue to monitor maintenance standards in all Southeast Garden Grove neighborhoods. Pockets of deterioration will be prevented by firm application of code enforcement to any property which threatens the appearance and stability of its neighborhood.
- 1.5 Encourage the use of property owner and other neighborhood-based associations to reduce crime and vandalism, maintain neighborhood amenities, and provide neighborhood social support through welcoming programs for newcomers, interest group meetings, block parties and other social events.

*Vacant/Underutilized
Commercial Properties*

- 1.6 Continue to provide rehabilitation assistance to those neighborhoods where it is needed with the understanding that subsequent code enforcement will be used to protect the City's investment in the area.
- 1.7 In accord with the Community Design Element, require that all parts of industrial developments visible from residential properties be attractively screened and landscaped.
- 1.8 Monitor apartment developments, with particular attention to Buena Clinton, to assure that internal population densities are manageable, property maintenance is acceptable, and the security of residents is protected.
- 1.9 Showcase those neighborhoods which exhibit residents' pride and exemplary standards of maintenance by conducting and publicizing garden tours, house tours, Christmas decoration competitions and the like.

ISSUE

There are vacant or underutilized commercial properties fronting on Southeast Garden Grove's arterial roadways, as well as some commercial development in need of rehabilitation. Commercial property which is not offering an acceptable rate of return to its owner is often vulnerable to deferred maintenance, leading to signs of deterioration and blight which can affect many nearby commercial and residential properties.

GOAL

2. Prosperous and attractive commercial development throughout Southeast Garden Grove.

POLICIES

The City should:

- 2.1 Enforce City codes in all commercial sites in Southeast Garden Grove.
- 2.2 Work with property owners of vacant commercially zoned property to develop their sites in appropriate, economically viable projects.
- 2.3 Work with property owners of marginally successful commercial developments to improve their properties.
- 2.4 Work with the Garden Grove Police Department to improve security in and around those commercial facilities in which there have been disturbances to the public peace.

Industrial Development

- 2.5 Upgrade the commercial sites adjacent to Harbor Boulevard in accordance with the Harbor Corridor Urban Design Plan.
- 2.6 In accordance with the Community Design Element, provide a monument sign to identify entrance into Garden Grove at the Harbor Boulevard and Westminster Avenue intersection.
- 2.7 Provide lateral access between adjoining parking lots on arterial roads in Southeast Garden Grove.
- 2.8 Support the commercial enterprises in Southeast Garden Grove with improved design of public facilities.
- 2.9 Encourage lot consolidation to provide suitable development areas.

ISSUE

Industry occupies a large and visually prominent area in Southeast Garden Grove. In many cases industrial sites fronting on arterial roadways are attractive and well-maintained with adequately screened service areas, but other sites are shabby and underutilized and necessary screening is inadequate. Interior areas of several industrial zones exhibit significant vacancies and other indications that attention is needed to restore the facilities to appropriate use and prosperous activity.

GOAL

3. Prosperous and attractive industrial parks in Southeast Garden Grove.

POLICIES

The City should:

- 3.1 Enforce City codes in all industrially zoned areas in Southeast Garden Grove.
- 3.2 Work with property owners of vacant industrial facilities to secure appropriate tenants for their properties.

ISSUE

Flood Control Channels

The Wintersburg Flood Control Channel runs southeast to northwest through Southeast Garden Grove north of Westminster Boulevard. Much of the Channel runs through industrial and commercial areas but a portion of it crosses school sites and residential neighborhoods. Residents whose properties abut the Channel complain that it is not properly landscaped, screened and maintained

so that the Channel has unnecessarily negative impacts on residents' enjoyment of their homes and the value of their properties. There are, in addition, frequent complaints of criminal activity centered on Channel undercrossings of arterial roadways adjacent to commercial development, particularly near Harbor Boulevard.

GOAL

4. Mitigated impacts from the Wintersburg Flood Control Channel.

POLICIES

- 4.1 Work with concerned citizens and the Orange County Flood Control District to improve the appearance of the Wintersburg Flood Control Channel without impairing its functional efficiency.
- 4.2 Work with the Garden Grove Police Department and the Orange County Flood Control District to secure Channel undercrossings from public access and to monitor them for criminal activity.

Related goals and policies are found earlier in this Element, as well as in the Housing and Community Design Elements.

ISSUE

The Orange County Transit Authority (OCTA) right-of-way runs northwest to southeast through Southeast Garden Grove. Most of it runs through industrial areas where it could be a useful enhancement of land used for industrial storage, parking or open space purposes. That section of the OCTA right-of-way adjoining residential property is a short segment forming the southern boundary of the Buena Clinton development, where it could provide badly needed park and recreation space for residents of that densely inhabited community.

GOAL

5. Beneficial use of the OCTA right-of-way in Southeast Garden Grove.

POLICIES

The City should:

- 5.1 Include Southeast Garden Grove industrial areas in the comprehensive plan for the beneficial use of the OCTA right-of-way in Garden Grove.
- 5.2 Work with the OCTA to provide park and recreation facilities in that part of the right-of-way accessible to the residents of the Buena Clinton apartments.

OCTA Right-of-Way

Willowick Golf Course

ISSUE

The Willowick Municipal Golf Course is owned by the City of Garden Grove, although it is situated on land within the boundaries of the City of Santa Ana. As noted in the Parks, Recreation and Cultural Activities Element, Willowick is an important recreational facility for Garden Grove, and it should be maintained and enhanced, emphasizing service to Garden Grove golfers.

GOAL

6. Enhancement of Willowick Municipal Golf Course.

POLICIES

The City should:

- 6.1 Consider opening negotiations with the City of Santa Ana to annex that portion of Garden Grove lying east of Ward Street and south of Hazard Avenue in exchange for Garden Grove's

annexation of that portion of Santa Ana which lies south of Westminster Avenue, east of Harbor Boulevard, including the site of the Willowick Municipal Golf Course.
- 6.2 Maintain City ownership of Willowick Municipal Golf Course and continue to work with its management to maintain and enhance the facility, emphasizing service to Garden Grove golfers.

Infrastructure Deficiencies

ISSUE

Inadequate capacities cause substandard performance of some infrastructure facilities in Southeast Garden Grove. The Planning Area is bounded on the north by the Garden Grove Freeway, and is bounded and crossed by several major arterials. A number of these roadways are congested, operating at unacceptable levels of service which causes drivers to seek speedier routes on residential streets. In addition, because of inadequate storm drainage, several of these thoroughfares and their connecting streets are vulnerable to flooding during periods of heavy rain. These infrastructure problems jeopardize the safety and convenience of residents and visitors to the Brookhurst/Euclid Planning Area.

GOAL

7. Infrastructure adequate to provide safety and convenience to Southeast Garden Grove residents.

POLICIES

- 7.1 Achieve and maintain desired levels of service on all roads and intersections in Southeast Garden Grove.
- 7.2 Improve the storm drainage in Southeast Garden Grove by implementing the Garden Grove Master Plan for Storm Drainage.

Related goals and policies are found in the Circulation and Infrastructure Element.

◆ APPENDIX A

1. DISCUSSION OF ALTERNATIVES

1.1 ALTERNATIVE A - EXISTING PLAN

Housing and Population

The existing General Plan proposed land use allocations which appear to have guided the City quite effectively over the past decades. Exhibit 1, *Alternative A - Existing Plan*, shows the existing General Plan and Table 1, *Comparison of Planned and Actual Land Use*, compares the acreages planned for year 2000 land use in the 1973 General Plan with the actual use of Garden Grove land twenty years later. As Table 1 shows, proportional land uses adhere closely to the General Plan, with slightly more land in residential use than planned, and slightly less for industry. The largest discrepancy between planned and actual land use is in open space, possibly reflecting the City's difficulty in securing sufficient park land to meet its adopted standard of five acres per thousand residents.

Population and Dwelling Unit Projections are now exceeded

The existing General Plan was not equally effective in predicting and managing the growth that has occurred in Garden Grove since its adoption. In 1973 the General Plan projected Garden Grove's population to be 135,000 people, housed in 44,610 dwelling units by the year 2000. The population residing in Garden Grove is now above 148,000, with a housing stock in excess of 46,000 units. The Plan proposed a moderate rate of population growth, to be accommodated in low density residential areas.

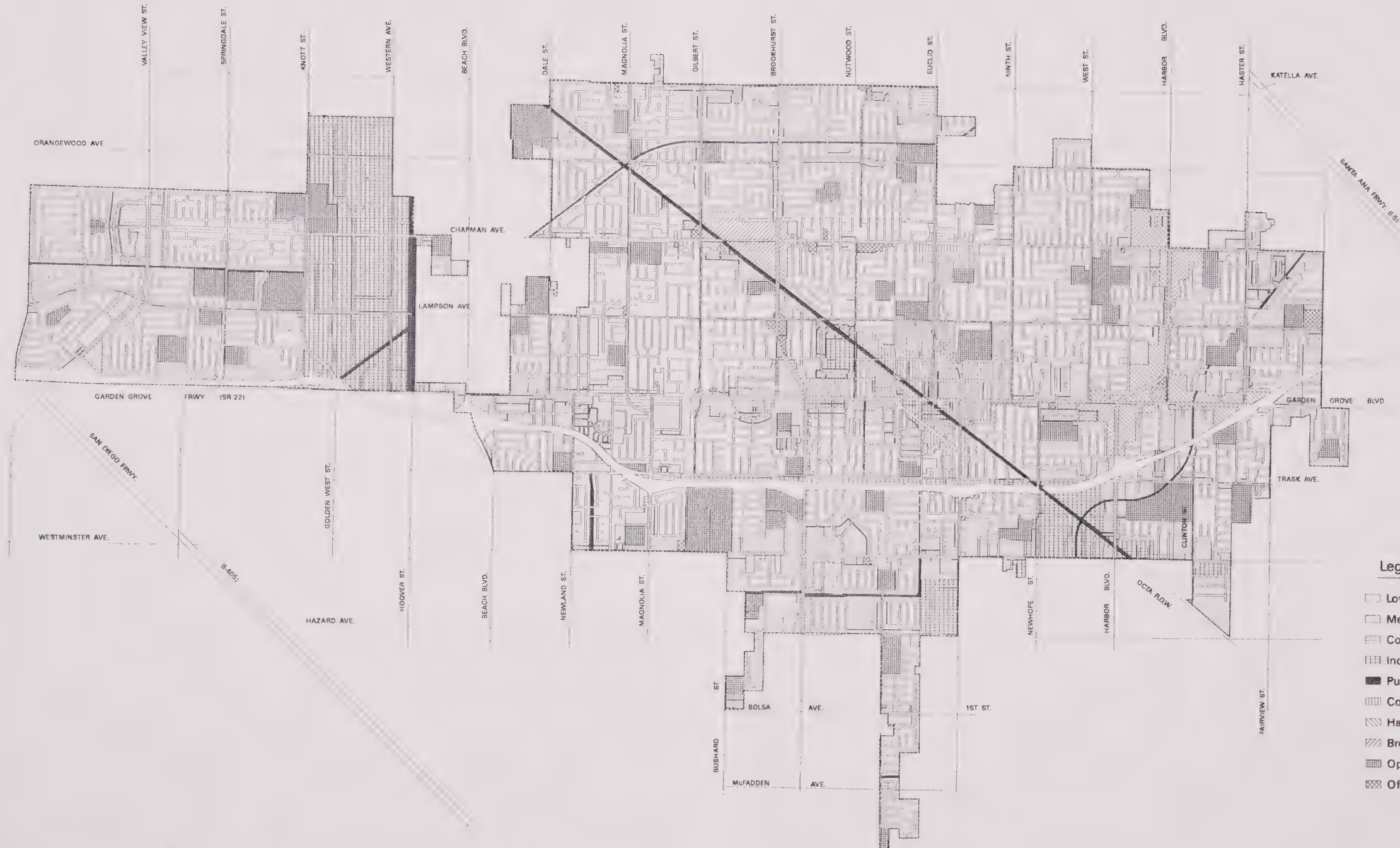
This is no longer a feasible proposition. A recent land use survey found that vacant land is available in less than 1% of the City's area. Of the approximately 121 acres that are vacant, only 25 acres are zoned for residential use, of which only nine are designated for low density residential use. There is insufficient vacant land to build adequate low density housing for a growing population.

As the Housing Section of the City of Garden Grove Existing Conditions Report shows, low density, single-family detached housing is becoming a smaller percentage of the City's housing stock. New and replacement housing units in Garden Grove are attached townhomes, condominiums and rental apartments. These higher density forms of housing are a growing share of the City's housing stock, and many of them have been built on recycled or redeveloped land.

Other pressures of population growth are evident in a number of Garden Grove's neighborhoods. The rate of overcrowded housing in Garden Grove more than doubled between 1980 and 1990, according to the U. S. Census of 1990. The economic pressure for more intensive use of land combined with the

GARDEN GROVE

GENERAL PLAN



Legend

- Low Density Residential
- Medium Density Residential
- Commercial
- Industrial
- Public / Quasi-Public
- Community Center Specific Plan
- Harbor Corridor Specific Plan
- Brookhurst / Chapman Specific Plan
- Open Space
- Office Professional



TABLE 1
COMPARISON OF PLANNED AND ACTUAL LAND USE

Land Use	1973 Plan Year 2000		Current Land Use	
	Acres	%	Acres ¹¹	%
Residential	5,461	49%	6,017	52%
Commercial	792	7%	804	7%
Office-Professional	136	1%	126	1%
Industrial	872	8%	850	7%
Public, Quasi-Public and Open Space	1,077	10%	1,075 ¹²	9%
Transportation	2,820	25%	2,712 ¹³	23%
Total	11,158	100%	11,584	100%

Source: City of Garden Grove Land Use Element, adopted 1973, Garden Grove General Plan Update, land use inventory.

¹¹ Current land uses include acreages in specific plans and PUDS.

¹² Includes City zoned Open Space, the Southern California Edison easement, and the Orange County Flood Control channels.

¹³ Includes streets, freeway, the Orange County Transit Authority right-of-way and the Southern Pacific Railroad right-of-way.

Traditional revenue sources have been drastically curtailed for cities

population pressure on existing residential communities make it essential to address the preservation of existing stable, low density neighborhoods, still the dominant land use in the City. These problems are, not surprisingly, unforeseen by the 1973 General Plan.

Economic Development

The decline in traditional sources of the local revenue needed to maintain standard municipal services could not be foreseen by the 1973 General Plan. Proposition 13, which drastically curtailed the property tax revenues available to cities, became law in 1978, after the adoption of most of the existing General Plan's elements.

The 1973 Land Use Element did recognize economic development issues already apparent in the City. The oversupply of small and shallow commercial lots fronting the City's arterials was identified as a problem then, as it has remained. The need to plan for the restoration of the City's declining commercial sector, although recognized, did not produce practical strategies for effective action. Revitalization was not explored in depth, at least partly because serious economic problems were still rare in the suburban cities of Orange County so that there was little local experience in addressing such problems.

General Plan Requirements

State laws have changed significantly since the adoption of the original General Plan Elements

The State of California has been a strong proponent of local comprehensive planning, first encouraging then requiring cities and counties to formulate and adopt General Plans. Both the State's legislature and its courts have strengthened the authority and scope of these Plans. Many of these laws, such as consistency requirements, were passed after the 1973 Land Use Element was adopted. In addition, a host of State-mandated topics such as affordable housing, waste management and traffic congestion have become required content for General Plans. Although the City has amended its existing General Plan on many occasions, internal consistency and currency are difficult to maintain with incremental change.

In addition to its existing land use plan and zoning code, the City now has three specific plans, extensive redevelopment areas, and numerous planned unit developments. There is a need to unify these efforts into a comprehensive plan to achieve the City's goals. The existing General Plan may not be an ideal instrument for this unification because it reflects, in itself, the incremental nature of its adoption.

1.2 ALTERNATIVE C - MODIFIED PROPOSED PLAN 1

Alternative B, the Proposed Plan, was prepared with the advice of 25 citizens of Garden Grove appointed by the City Council to the General Plan Advisory Committee. Following a preliminary presentation of the land use aspects of the Proposed Plan, some members of the Committee agreed that some modifications in land use should, or could as an alternative, be made to the Proposed Plan. These modifications became Alternative C as shown on Exhibit 2, *Alternative C - Modified Proposed Plan*. These modifications are listed below.

Locations of Modified Land Uses

- At the southeast corner of Katella Avenue and Dale Street, a one-acre site proposed to be LC, Light Commercial, should instead be designated as LMR, Low Medium Density Residential. This was recommended for compatibility with adjoining residential neighborhoods.
- At the southwest corner of Harbor Boulevard and Chapman Avenue, it is recommended that a five-acre parcel be designated for RC, Recreation Commercial use, rather than the MU, Mixed Use, in the Proposed Plan. The recommendation was based on the benefits of extending the Commercial Recreation sites which are proposed for the northwest and southeast corners of the intersection of Chapman Avenue and Harbor Boulevard.
- Land which lies on the north side of Garden Grove Boulevard between Brookhurst Way and Brookhurst Street, is often called the Brookhurst Triangle. This Triangle is designated as MU, Mixed Use, in Alternative B. Alternative C suggests that the Triangle be designated LC, Light Commercial, as a possibility preferable to Mixed Use.
- A fifteen-acre parcel lying between Acacia Parkway and Garden Grove Boulevard, east of Nelson Street, is designated for MU, Mixed Use, in the Proposed Plan. Alternative C recommends RC, Recreation Commercial, for the parcel, in order to bring more life to the Community Center area.
- A three-acre parcel on the south side of Garden Grove Boulevard, east of Rockinghorse Road, now consists of vacant land and a small motel. The Proposed Plan recommends LC, Light Commercial, for the site. Alternative C recommends LMR, Low Medium Density Residential use instead, arguing that there is too much strip commercial development on Garden Grove Boulevard. LMR would have the additional benefit of buffering adjoining residential neighborhoods from heavy traffic.

GARDEN GROVE

GENERAL PLAN



Legend

- Low Density Residential
- Low Medium Density Residential
- Medium Density Residential
- Medium High Density Residential
- Community Residential
- Light Commercial
- Heavy Commercial
- Recreation Commercial
- Office Professional
- Mixed Use
- Industrial
- Open Space



- A six-acre parcel located on the northwest corner of Haster Street and Garden Grove Boulevard is recommended for the MU, Mixed Use land use designation in the Proposed Plan. Alternative B advises instead that the parcel be designated LMR, Low Medium Density Residential, in order to serve as a relocation site for a mobile home park displaced by Mixed Use in the Harbor Corridor area.
- A three-acre parcel on the south side of Garden Grove Boulevard, east of Beach Boulevard at the Garden Grove Freeway access road is designated LC, Light Commercial. Alternative C recommends that the designation be changed to RC, Recreation Commercial, in order to maximize the benefits of Freeway location for the site.
- Six blocks, on the south side of Garden Grove Boulevard, between Brookhurst and Nutwood Streets, are designated as one acre of LC, Light Commercial, and four acres of LMR, Low Medium Density Residential. Alternative C proposes that the total five acres be designated for MU, Mixed Use, in order to serve as a buffer for the residential neighborhood, 88 Acres, which lies to the south of these blocks.
- A large, partially vacant, shopping center of ten acres is located on the southwest corner of Brookhurst Street and Westminster Avenue. Alternative B, the Proposed Plan, designates it as MU, Mixed Use. Alternative C recommends that the designation of LC, Light Commercial, be restored there.

Table 2, *Alternative C, Adjusted Build-Out by Area*, displays the aggregated land use data which result from application of Alternative C proposals.

1.3 ALTERNATIVE D - MODIFIED PROPOSED PLAN 2

During the period in which the Garden Grove General Plan Update work was proceeding, the City invited a R/UDAT (Rural/Urban Development Action Team, a service provided by the American Institute of Architects) to make recommendations on improvements to the Harbor Corridor. The R/UDAT team conducted charettes in which Garden Grove citizens participated, which led to a series of recommendations. The recommendations were later written and illustrated in the R/UDAT Report. The Report, and the work of the charettes, received enthusiastic support from many of the City's leaders. Land use changes to the Proposed Plan which would be necessary to implement the R/UDAT recommendations are a part of Alternative D.

**TABLE 2
ALTERNATIVE C
ADJUSTED BUILD-OUT BY AREA**

Designation	Net Acres	Development
Residential		
LDR	4,594	25,198 DUs
LMR	300	3,303 DUs
MDR	981	20,854 DUs
MHR	17	674 DUs
CR	18	900 DUs
MU	-	518 DUs
Total Residential	5,910 acres	51,447 DUs
Commercial		
LC	513	8,310,560 sq.ft.
HC	50	663,000 sq.ft.
RC	93	1,579,900 sq.ft.
Total Commercial	656 acres	10,553,460 sq.ft.
Office	149 acres	2,192,700 sq.ft.
Mixed Use	320 acres	5,171,400 sq.ft.
Industrial	743 acres	18,229,800 sq.ft.

Other recommended changes, proposed by City staff and others, comprise the remainder of the changes to the Proposed Plan suggested in Alternative D - Modified Proposed Plan 2. This Alternative is illustrated on Exhibit 3, *Alternative D - Modified Proposed Plan 2*. The changes to Alternative D from Alternative B, the Proposed Plan, are summarized below.

Locations of Modified Land Uses

- The R/UDAT recommended that traffic from the new gateway to the expanded Disneyland on West Street in Anaheim should be diverted as it passes through North Garden Grove to Harbor Boulevard. A new road would proceed southeast from West Street, north of Orangewood Avenue, to Chapman Avenue and thence to Buaro Street. In order to achieve this traffic diversion, and to buffer residential neighborhoods against the traffic, six acres of LDR, Low Density Residential, designated land would be replaced by three acres of MHR, Medium High Residential, designated land and three acres of RC, Recreation Commercial.
- The R/UDAT recommended that Buaro Street be planned as a major route for Disneyland traffic moving south through Garden Grove to Garden Grove Boulevard. Much of this route is bordered by MU, Mixed Use, development in the Proposed Plan. An alternate use of three acres of MHR, Medium High Density Residential, within the MU, Mixed Use, area is proposed in Alternative D.
- Kaiser Permanente occupies an office building on land near the southeast corner of Chapman Avenue and Euclid Street. The office building is set on a large parcel of vacant land. The Proposed Plan, Alternative B, recommends that the vacant land be developed as Office Professional, Open Space and Low Density Residential. Alternative D recommends instead that the entire site be devoted to OP, Office Professional use.
- Century Boulevard dead ends on Euclid Street resulting in a dog-leg access from the Garden Grove Freeway to Euclid Street via Trask Avenue. Because this is a major entrance/exit between the Community Center and the Freeway, Alternative D recommends that Century Boulevard be extended across Euclid Street to lead directly to the Freeway access ramps. In order to accomplish this, Alternative D recommends the replacement of twenty acres of LDR, Low Density Residential, land use with twenty acres of MU, Mixed Use.
- In accord with the R/UDAT recommendations, the intersection of Buaro Street and Harbor Boulevard should be altered so that Buaro Street



Legend

- Low Density Residential
- Low Medium Density Residential
- Medium Density Residential
- Medium High Density Residential
- Community Residential
- Light Commercial
- Heavy Commercial
- Recreation Commercial
- Office Professional
- Mixed Use
- Industrial
- Open Space



curves to the east, meeting Harbor Boulevard at a safer and more accessible angle. The change of the intersection leaves a five-acre triangle of land which Alternative D proposes for a MHR, Medium High Density Residential, land use designation, replacing the MU, Mixed Use, designation in the Proposed Plan, Alternative B.

- In accord with R/UDAT recommendations, it is proposed to redesignate seven acres of LDR, Low Density Residential, land lying between Harbor Boulevard and Choisser Street, one block east of Harbor Boulevard. This would be replaced with the MU, Mixed Use, land use designation to create a buffer to protect residential neighborhoods lying east of Harbor Boulevard from the increased traffic resulting from the Smart Street project which is planned for Harbor Boulevard.
- Between Brookhurst Street and Flower Street, north of Trask Avenue, Alternative D recommends that ten acres of LMR, Low Medium Density Residential, land use be replaced with LC, Light Commercial.

The land use revisions recommended in Alternative D are shown in Table 3, *Alternative D, Adjusted Build-Out by Area*.

**TABLE 3
ALTERNATIVE D
ADJUSTED BUILD-OUT BY AREA**

Designation	Net Acres	Development
Residential		
LDR	4,551	24,984 DUs
LMR	284	3,158 DUs
MDR	981	20,892 DUs
MHR	23	828 DUs
CR	18	900 DUs
MU	-	1,084 DUs
Total Residential	5,861 acres	51,846 DUs
Commercial		
LC	515	8,097,700 sq.ft.
HC	50	663,000 sq.ft.
RC	73	1,144,300 sq.ft.
Total Commercial	638 acres	9,905,000 sq.ft.
Office	155 acres	2,412,700 sq.ft.
Mixed Use	382 acres	6,006,720 sq.ft.
Industrial	743 acres	18,229,800 sq.ft.

◆ CIRCULATION AND INFRASTRUCTURE

The City shall seek to provide a safe and efficient transportation and circulation system that minimizes the impact of the automobile, maximizes the use of public transportation and strives for a more adequate non-vehicular circulation system. The City shall also seek to ensure that streets and highways are a more visually element within the community.

The City shall seek to provide an infrastructure system which meets the needs of the community.

1. INTRODUCTION

Since the circulation element was first required by State law in 1955, transportation technology and needs in California have changed greatly, with the emphasis today on the development of a balanced, multi-modal transportation system. According to State law, the policies and plan proposals of the circulation element should:

- Coordinate the transportation and circulation system with planning land uses;
- Promote the efficient transport of goods and the safe and effective movement of all segments of the population;
- Make efficient use of existing transportation facilities;
- Plan for public utilities and facilities; and
- Protect environmental quality and promote the wise and equitable use of economic and natural resources.

2. AUTHORITY FOR THE ELEMENT

Under State planning law, each City must develop and adopt a comprehensive long-term general plan for the physical development of the City. Government Code Section 65302(b) states that a circulation element is required which consists of "... the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities, all correlated with the land use element of the plan."

This Element of the Garden Grove General Plan addresses not only the circulation within the community, but also the City's public utilities and facilities, hence the name of the Element, the Circulation and Infrastructure Element.

3. RELATIONSHIP TO OTHER ELEMENTS

It is important that the policies and plan proposals of the Circulation and Infrastructure Element coordinate closely with all elements of the General Plan, but particularly with those of the Land Use, Noise, Growth Management and Air Quality Elements.

The Land Use Element addresses circulation by setting out, in its map and policies, the location and size of all roadways in the City, coordinated with

the land uses the roads will serve. It also notes the planned capacities of all other infrastructure systems which will be necessary to protect the health and welfare of the citizens of Garden Grove.

This Element relates closely with the Housing Element in that achievement of a jobs/housing balance within a community has historically been a goal of communities in an effort to reduce vehicle miles traveled.

The Circulation and Infrastructure Element emphasizes transportation issues which are relevant to the Safety Element in that efficient traffic flow benefits emergency response and evacuation objectives. In addition, the Circulation and Infrastructure Element identifies areas of localized flooding created by storm drainage deficiencies.

Noise and air quality are determined in large part by the traffic and transportation within a community, thereby creating an inextricable link between the Noise, Air Quality and Circulation and Infrastructure Elements.

This Element relates to the Open Space/Conservation Element in that open space areas along roadways are often a means by which traffic-generated noise is mitigated.

The Circulation and Infrastructure Element relates to the Economic Development Element by recommending fiscally sensitive programs and activities which can be readily assimilated into existing programs.

The Community Design Element strives to tie in the circulation network as a unifying feature throughout the community, thereby relating directly to this Element.

This Element and the Growth Management Element ensure that transportation and infrastructure facilities and public services are provided concurrent with need, in support of one another.

The Parks, Recreation and Cultural Activities Element addresses bicycle and pedestrian trails, which relate to the City's overall circulation system.

4. SUMMARY OF FINDINGS

4.1 TRANSPORTATION/CIRCULATION

Existing Circulation System

Regional roadways include those facilities that serve regional travel demand and are under the jurisdiction of other agencies, such as Caltrans. Within the city limits of Garden Grove, the Garden Grove Freeway (SR-22) is the

Regional Circulation

primary regional facility. SR-22 is a six-lane, limited access transportation corridor between the Costa Mesa Freeway (SR-55) in the east and the San Diego Freeway (I-405) in the west.

Improvements to the Garden Grove Freeway that are committed in the State Transportation Improvement Program (STIP) include the completion of sound walls from Beach Boulevard to Yockey and from roughly Pierce to Garden Grove Boulevard. No other improvements are indicated in the STIP or the County Twenty Year Master Plan of Transportation Improvements.

I-405 also provides regional access and circulation in the westerly end of Garden Grove. Access to I-405 within the City of Garden Grove is provided at Bolsa Chica Road/Valley View Street. I-405 provides regional circulation from Orange County in the south to Los Angeles County in the north. In the vicinity of Garden Grove, I-405 is a ten-lane limited access transportation corridor. Recently, high occupancy vehicle (HOV) lanes were constructed in the median of I-405 for vehicles with two or more passengers.

While not within the city limits, access to the Santa Ana Freeway (I-5) is provided less than one mile from the City's easterly border, at State College Boulevard and Chapman Avenue. I-5 is a major regional transportation corridor provided throughout the State of California from the Mexican border in the south to the Oregon border in the north. Currently, I-5 proximate to Garden Grove is a six- to eight-lane freeway. A widening project has been approved, and Caltrans is acquiring property to widen I-5 to a ten-lane facility, with HOV lanes for vehicles with two or more passengers.

Local Circulation

Local circulation within the City of Garden Grove is provided by a primarily grid pattern system of arterial streets, most of which are under the sole jurisdiction of the City. The local arterial street system is classified by a function hierarchy. Major arterials are six-lane, high volume roadways that are intended to carry regional traffic not handled by the freeway system. Primary arterials are four-lane divided highways. The function of a Primary arterial is similar to that of a Major arterial; the principal difference is capacity. A Secondary arterial is a four-lane undivided (i.e., no median) roadway. A Secondary arterial serves as a collector, distributing traffic between local streets and Major and Primary arterials. A detailed matrix of the function classification of arterials within the City of Garden Grove is provided in Table 1, *Arterial Highway Classification*.

Exhibit 1, *Existing Circulation System and MPAH Designations*, illustrates the existing circulation system within the City of Garden Grove. Roadway classifications are based on County of Orange Master Plan of Arterial Highways (MPAH) classifications. The following discussion presents the characteristics of the arterial classifications, and lists the arterial designations within the City of Garden Grove.

TABLE 1
ARTERIAL HIGHWAY CLASSIFICATION

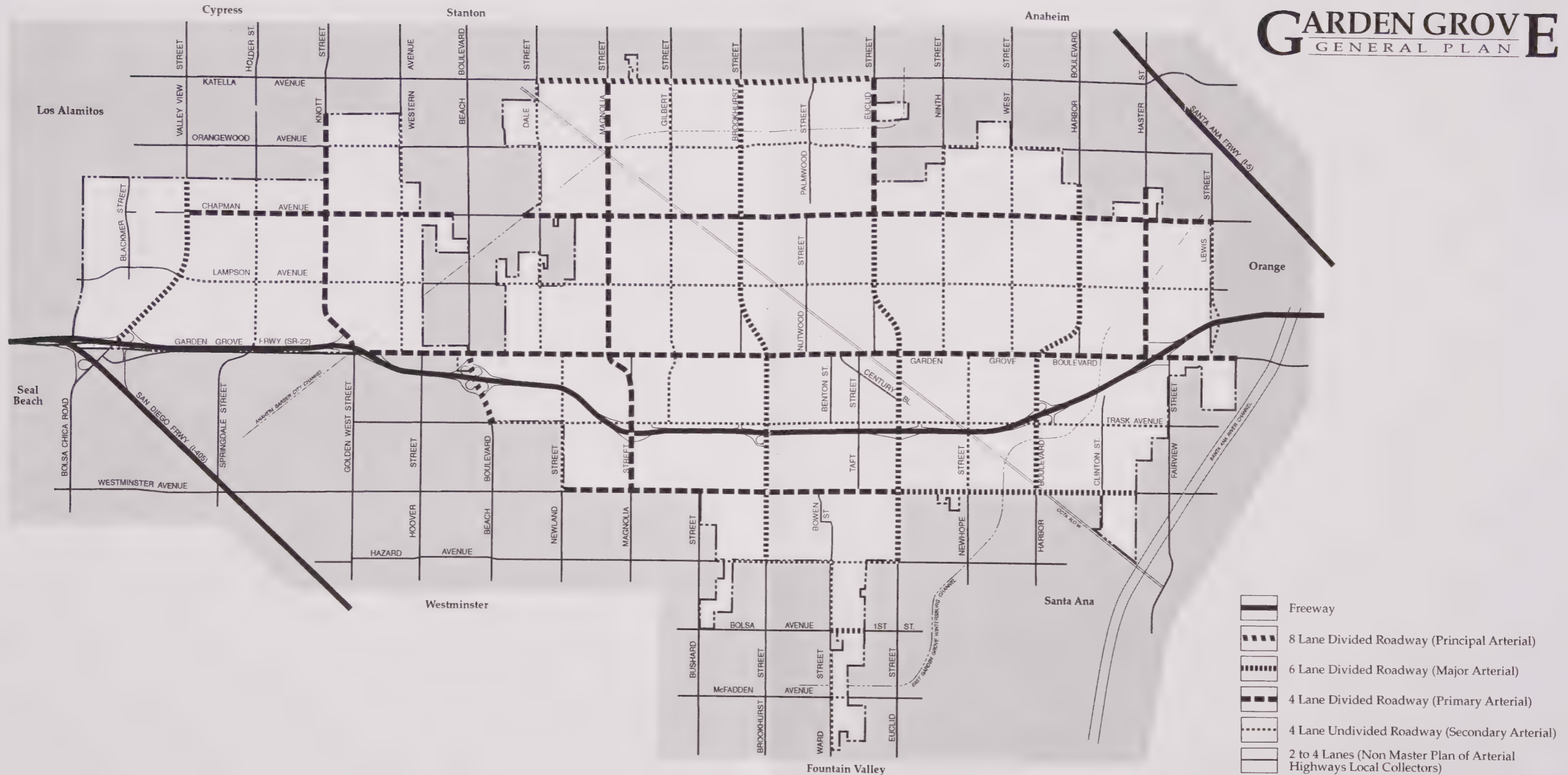
Type	No. of Lanes	Median	Right-of-Way¹	Daily Volume at Capacity²	Function
Principal	8	Yes	160 feet	72,000	Carry large volume of regional traffic on high capacity thoroughfare.
Major	6	Yes	120 feet	56,300	Carry large volume of regional traffic not handled by freeways.
Primary	4	Yes	100 feet	37,500	Carry regional traffic, but with less capacity than Major arterial.
Secondary	4	No	80 feet	25,000	Distribute traffic between local streets and Major and Primary arterials.

¹Right-of-way width is a general guide, as consistency with the County MPAH is measured by number of lanes.

²Capacity volume is based on County of Orange MPAH standards.

GARDEN GROVE

GENERAL PLAN



Source: LSA



Major arterials comprise approximately ten miles of the circulation system of the City of Garden Grove. Major arterials include the following roadways:

- Valley View Street - Catalina Avenue to SR-22 Freeway,
- Brookhurst Street - Katella Avenue to Hazard Avenue,
- Harbor Boulevard - Chapman Avenue to Westminster Boulevard,
- Katella Avenue - Euclid Street to Dale Street,
- Bolsa Avenue - Ward Street to Starboard Street,
- Euclid Street - Westminster Avenue to Hazard Avenue,
- Westminster Avenue - Euclid Street to Harbor Boulevard, and
- Fairview Road - south of Trask Avenue to Garden Grove Boulevard.

Katella Avenue is also designated as a Smart Street in the County of Orange Congestion Management Program highway system. Other Smart Streets in the City of Garden Grove include Harbor Boulevard, Beach and Valley View Streets. Along with the State highways, the Smart Street network comprises the Congestion Management Program (CMP) highway system, the performance of which determines compliance with CMP level of service (LOS) thresholds. This special street designation allows for the development of improvements that enhance the traffic carrying capacity of this roadway in excess of the Major arterial designation.

Primary arterials comprise approximately 23 miles of the total city-wide circulation system. Primary arterials in the City of Garden Grove include the following roadways:

- Knott Avenue - Patterson Drive to Garden Grove Boulevard,
- Magnolia Street - Katella Avenue to Westminster Boulevard,
- Euclid Street - Katella Avenue to Westminster Boulevard,
- Haster Street - Tiller Street to SR-22,
- Chapman Avenue - Knott Avenue to west of Beach Boulevard, east of Dale Street to Lewis Street,
- Garden Grove Boulevard - Knott Avenue to west of Park Vine Street, and
- Westminster Boulevard - west of Erin Street to Euclid Street.

In the City of Garden Grove, Secondary arterials make up approximately 25 miles of the circulation system. Secondary arterials include the following roadways:

- Western Avenue - Simmons Place to Garden Grove Boulevard,
- Dale Street - Katella Avenue to Orangewood Avenue, near Linmar Meadows to Chapman Avenue, Enault Lane to Garden Grove Boulevard,
- Gilbert Street - Katella Avenue to Garden Grove Boulevard,
- Ninth Street - Orangewood Avenue to Garden Grove Boulevard,

*Existing 1992 Arterial
Traffic Operations*

- West Street - Orangewood Avenue to Garden Grove Boulevard,
- Lewis Street - Chapman Avenue to Garden Grove Boulevard,
- Orangewood Avenue - west of Nearing Way to Euclid Street, Ninth Street to east of Harbor Boulevard,
- Lampson Avenue - west of Manley Street to Hoover Street, east of Beach Boulevard to Lewis Street,
- Trask Avenue - Beach Boulevard to Fairview Street,
- Springdale Street - SR-22 Freeway to north of Santa Barbara Street,
- Newhope Street - Westminster Avenue to Garden Grove Boulevard,
- Newland Avenue - Westminster Avenue to Garden Grove Boulevard,
- Ward Street - Edinger Avenue to Hazard Avenue,
- Hazard Avenue - east of Bushard Street to Euclid Street,
- Bushard Street Bolsa Avenue to Westminster Avenue, and
- McFadden Avenue - Ward Street to Reeve Street.

Existing 1992 daily traffic volumes for the primary roadways within the study area are illustrated in Exhibit 2, *Existing Daily Traffic Volumes and Volume to Capacity Ratios*.

In addition, Exhibit 2 presents the relationship of the average daily traffic volume to the theoretical capacity used by the County of Orange for each roadway. The theoretical capacity is determined based on type of roadway and number of travel lanes, and is illustrated in Table 1.

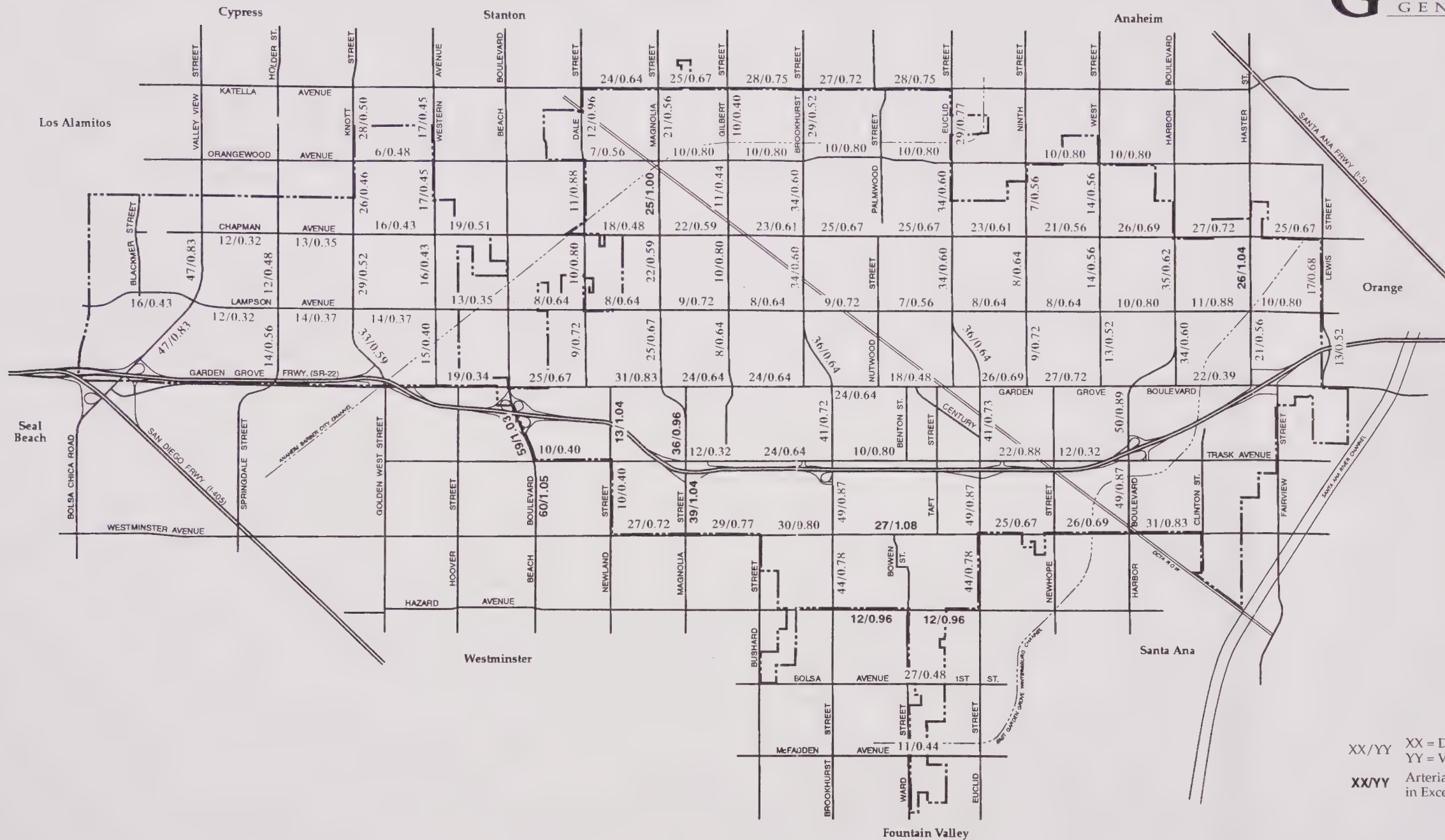
Based on the theoretical capacity by facility type and the observed daily traffic volume along each arterial segment, a ratio of the volume to the capacity (v/c) ratio has been calculated. Those roadway sections with a v/c ratio greater than 0.90 (i.e., having a volume greater than 90 percent of the capacity, or the level of service D criteria) are considered undesirable.

Several roadways in Garden Grove have daily traffic volumes in excess of the 0.90 v/c ratio threshold. These include:

- Westminster Street between Brookhurst Street and Euclid Street,
- Hazard Avenue between Brookhurst Street and Euclid Street,
- Magnolia Street between Westminster Avenue and Garden Grove Boulevard,
- Magnolia Street between Chapman Avenue and Orangewood Avenue, and
- Haster Street between Lampson Avenue and Chapman Avenue.

*Existing 1992 Intersection
Traffic Operations*

Peak hour intersection operations are assessed relative to overall intersection capacity. The intersection level of service is determined based on the portion of the intersection's capacity used by peak hour traffic. Levels of service indicate the prevailing operation of an intersection, and are based on the County/City approved intersection capacity utilization (ICU) analysis



XX/YY XX = Daily Traffic Volume (in Thousands)
YY = Volume to Capacity Ratio

XX/YY Arterial Segments with V/C Ratios
in Excess of 0.90

Source: LSA

Existing Daily Traffic Volumes and Volume to Capacity Ratios



approach. In essence, an ICU is the percentage of an intersection's capacity that is needed to adequately accommodate all vehicles traveling through the intersection.

The resulting intersection capacity utilization is expressed in terms of level of service, where LOS A represents free flow activity and LOS F is overcapacity operations. As a result of State legislation and the creation of the Congestion Management Program (CMP) requirements, a CMP highway network and level of service standards have been adopted by the County of Orange. In the City of Garden Grove, the SR-22 Freeway, Valley View Street, Katella Avenue, Harbor Boulevard, and Westminster Avenue are arterials in the CMP Highway System. In addition, the intersections of SR-22/Harbor Boulevard and SR-22/Valley View Street are included in the highway system for level of service determination. According to the CMP requirements, the minimum level of service for these facilities is Level of Service (LOS) E, or the current level, whichever is farthest from LOS A.

This level of service E condition is reflective of near, or at, capacity conditions, and is not consistent with the goal of providing mobility within the City of Garden Grove. Therefore, as an approach to ensuring mobility within and through the City of Garden Grove, a level of service standard will be adopted that provides for some residual capacity along arterials and at intersections. A level of service standard of LOS D provides for between 80 and 90 percent capacity utilization, leaving a residual capacity buffer of 10 to 20 percent.

For evaluation of intersection impacts, the upper limit of LOS D, represented by an ICU value of 0.90 or lower, is considered satisfactory operation. An ICU value greater than 0.90, but less than 1.00 (i.e., theoretical capacity), reflects LOS E, an undesirable condition. An ICU value greater than 1.00 is an unsatisfactory LOS F condition.

Critical intersections, defined as the intersection of Major-Major, Major-Primary or Primary-Primary arterials, are included in the level of service analysis. With minor exceptions, the operation of the Major and the Primary arterials and their intersections will indicate the overall quality of circulation through the area. Table 2, *Existing Condition Intersection Level of Service Analysis*, presents the a.m. and p.m. peak hour levels of service for each of the intersections analyzed.

General Plan Build-Out

General Plan build-out traffic forecasts have been modeled based on the Land Use Plan mix of uses. In this way, arterial and intersection capacity can be provided to accommodate the traffic generated by the future land uses, and the Circulation and Infrastructure Element is balanced with the

*General Plan Build-Out
Daily Traffic Operations*

TABLE 2
EXISTING CONDITION INTERSECTION LEVEL OF SERVICE ANALYSIS

No.	Intersection Location	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1	Valley View Street/Chapman Avenue	0.63	B	0.69	B
2	Valley View Street/SR-22 WB On-Off Ramps	0.83	D	0.83	D
3	SR-22 BE Ramp-Valley View/Garden Grove Blvd.	0.70	B	0.70	B
4	Valley View Street/Garden Grove Boulevard	0.86	D	0.79	C
5	Knott Street/Chapman Avenue	0.51	A	0.62	B
6	Knott St.-Golden west St./Garden Grove Blvd.	0.87	D	0.80	C
7	Newland Street/Trask Avenue	0.43	A	0.49	A
8	Magnolia Avenue/Chapman Avenue	0.80	C	0.91	E
9	Magnolia Avenue/Garden Grove Boulevard	0.58	A	0.88	D
10	Magnolia Street/Trask Avenue-SR-22 On-Ramp	0.78	C	0.84	D
11	SR-22 WB Off-Ramp/Trask Avenue at Magnolia	0.32	A	0.52	A
12	Magnolia Street/SR-22 EB On-Ramp Ramps	0.62	B	0.85	D
13	Magnolia Avenue/Westminster Avenue	0.74	C	0.84	D
14	Brookhurst Street/Chapman Avenue	0.56	A	0.84	D
15	Brookhurst Street/Garden Grove Boulevard	0.66	B	0.73	C
16	SR-22 WB On-Off Ramps/Trask at Brookhurst	0.48	A	0.55	A
17	Brookhurst Street/SR-22 On-Off Ramps	0.78	C	0.85	D
18	Brookhurst Street/Westminster Avenue	0.72	C	0.78	C
19	Euclid Street/Chapman Avenue	0.66	B	0.73	C
20	Euclid Street/Garden Grove Boulevard	0.55	A	0.62	B
21	SR-22 WB Ramps-Havenwood/Trask at Euclid	0.63	B	0.57	A
22	Euclid Street/SR-22 Eastbound Ramps	0.59	A	0.86	D
23	Euclid Street/Westminster Avenue	0.86	D	0.98	E
24	Harbor Boulevard/Chapman Avenue	0.62	B	0.87	D
25	Harbor Boulevard/Garden Grove Boulevard	0.58	A	0.88	D
26	Harbor Boulevard/Banner-SR-22 WB Off-Ramp	0.85	D	0.76	C
27	Harbor Boulevard/Trask Avenue	0.78	C	1.04	F
28	Haster Street/Chapman Avenue	0.69	B	1.10	F
29	Haster Street/SR-22 WB Off-Ramp	0.49	A	0.56	A
30	Haster-SR-22 WB On-Ramp/Garden Grove Blvd.	0.62	B	0.75	C
31	Fairview-SR-22 EB On-Ramp/Garden Grove Blvd.	0.82	D	0.86	D

Land Use Element. A detailed description of the traffic modeling procedures, including trip generation, trip assignment and model validation, is included in the *Garden Grove Traffic Analysis Model: Model Validation Report*, available at the City of Garden Grove, Development Services Department.

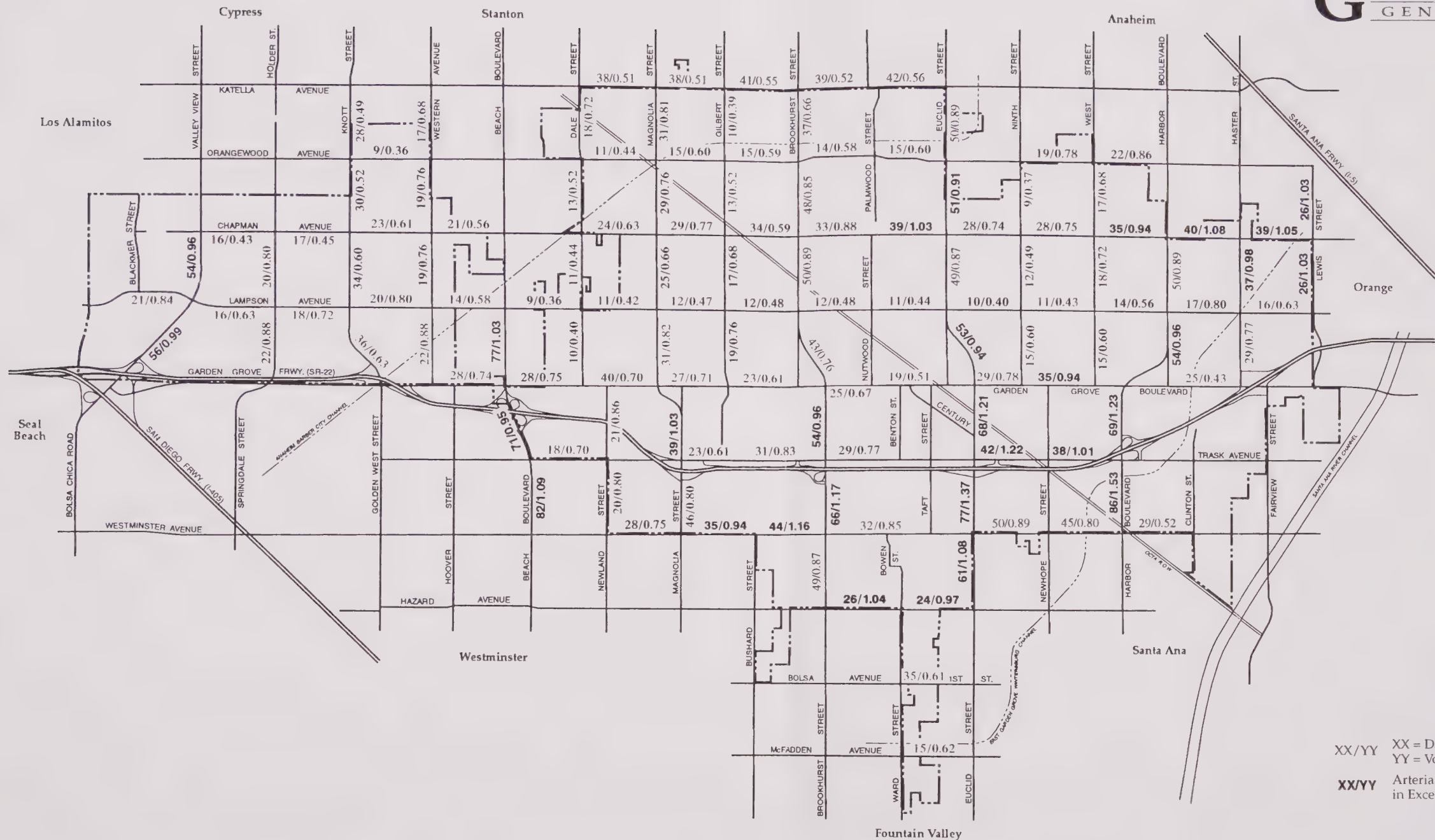
Exhibit 3, *Land Use Plan Daily Traffic Volumes and Volume to Capacity Ratios*, presents the Land Use Plan build-out daily traffic volume forecasts. In addition, volume to capacity ratios are presented based on the theoretical capacity values used by the County of Orange for each roadway, assuming the arterials' ultimate configuration (i.e., Major, Primary, Secondary, etc.).

As seen in Exhibit 3, the majority of the arterial segments in the City are forecast to operate with satisfactory v/c ratios. However, arterial segments leading to the SR-22 Freeway are forecast to operate with v/c ratios in excess of the 0.90 threshold, some greater than 1.00 or the theoretical capacity. These segments include:

- Magnolia Street between Garden Grove Boulevard and the SR-22 Freeway,
- Brookhurst Street between Garden Grove Boulevard and Westminster Avenue,
- Euclid Street between Lampson Avenue and Hazard Avenue,
- Beach Boulevard between Lampson Avenue and Westminster Avenue, and
- Trask Avenue between Magnolia Street and Harbor Boulevard.

These segments are forecast to exceed the 0.90 v/c ratio threshold primarily due to the influence of the SR-22 Freeway and regional traffic. Although these v/c ratios exceed the satisfactory threshold, other factors, such as freeway access intersection operation, will determine actual system performance. Intersection levels of service are addressed in the following section, which indicates that freeway access operation is forecast to operate satisfactorily in the General Plan build-out. Therefore, no additional arterial lanes, or modifications to the arterial designations to accommodate the daily traffic forecasts, are recommended for the majority of these segments as part of the General Plan Circulation Map.

In the Land Use Plan forecasts, individual arterial segments, such as Chapman Avenue, east of West Street, and Haster Street, south of Chapman Avenue, are forecast to exhibit daily v/c ratios in excess of the 0.90 threshold. It is noted that residual capacity is forecast on parallel routes to these roadways. System-wide, the circulation network will accommodate the forecast daily traffic volumes. Additional travel lanes and modifications to the Circulation Map arterial designations are not warranted for these individual arterial segments, as capacity is forecast on parallel routes.



Source: LSA

Plan Daily Traffic Volumes and Volume to Capacity Ratios

Exhibit 3



General Plan Alternatives

General Plan Build-Out Intersection Traffic Operations

Daily traffic volumes for alternative land use scenarios have been forecast and are included in Appendix A of this Element for review and comparison to the Land Use Plan.

Peak hour intersection operations are forecast for the Land Use Plan build-out. Forecast levels of service are determined based on the intersection capacity utilization methodology, consistent with the County Congestion Management and Growth Management requirements. Intersection levels of service are determined to identify the possible intersection lane geometrics that may be required to accommodate General Plan build-out traffic. The future intersection geometrics indicate the level of future improvements that may be required. Intersection levels of service will continue to be monitored as part of the development review process, and appropriate intersection improvements will be required to be constructed to accommodate future development traffic at the standard LOS D conditions.

Table 3, *Land Use Plan Intersection Level of Service Analysis*, presents the Land Use Plan build-out a.m. and p.m. peak hour intersection levels of service. Based on the traffic volume forecasts, 29 of the 31 intersections are forecast to operate at LOS D or better with General Plan level intersection improvements. Table 4, *Land Use Plan Intersection Lane Improvements*, illustrates the intersection improvements that result in satisfactory peak hour levels of service in the General Plan build-out horizon. As development proposals are analyzed by the City of Garden Grove and peak hour intersection impacts are identified, circulation improvements should be recommended that are compatible with the general arterial classification of the intersecting roadways and consistent with the recommended improvements in Table 4.

Two intersections, Harbor Boulevard/Trask Avenue and Fairview/SR-22 eastbound on-ramp/Garden Grove Boulevard, are forecast to exceed the LOS D threshold in the General Plan build-out horizon, regardless of the intersection improvements analyzed. These forecast deficiencies are caused by many factors, the least of which is anticipated new development in the City of Garden Grove. The Land Use Plan contemplates new or intensified land use development planned for isolated locations, such as the Civic Center area and the Harbor Boulevard corridor. The proportion of the growth in traffic forecast for these affected roadways within the City of Garden Grove is attributable to traffic generated in adjacent communities and traffic destined for the major commercial and entertainment centers in North and Central Orange County.

The City of Garden Grove currently participates in inter-jurisdictional forums as part of the Measure M Growth Management Program. As part of Growth Management Areas (GMA) 2, 3 and 6, Garden Grove shares in these forums with all of the adjacent cities and the County of Orange. The

TABLE 3
LAND USE PLAN INTERSECTION LEVEL OF SERVICE ANALYSIS

No.	Intersection Location	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1	Valley View Street/Chapman Avenue	0.72	C	0.79	C
2	Valley View Street/SR-22 WB On-Off Ramps	0.81	D	0.80	D
3	SR-22 EB Ramp-Valley View/Garden Grove Blvd.	0.75	C	0.74	C
4	Valley View Street/Garden Grove Boulevard	0.87	D	0.76	C
5	Knott Street/Chapman Avenue	0.62	B	0.78	C
6	Knott St.-Goldenwest St./Garden Grove Blvd.	0.89	D	0.86	D
7	Newland Street/Trask Avenue	0.73	C	0.81	D
8	Magnolia Avenue/Chapman Avenue	0.79	C	0.88	D
9	Magnolia Avenue/Garden Grove Boulevard	0.57	A	0.88	D
10	Magnolia Street/Trask Avenue-SR-22 On-Ramp	0.80	C	0.86	D
11	SR-22 WB Off-Ramp/Trask Avenue at Magnolia	0.50	A	0.77	C
12	Magnolia Street/SR-22 EB On-Ramp Ramps	0.63	B	0.85	D
13	Magnolia Avenue/Westminster Avenue	0.75	C	0.88	D
14	Brookhurst Street/Chapman Avenue	0.60	B	0.88	D
15	Brookhurst Street/Garden Grove Boulevard	0.77	C	0.87	D
16	SR-22 WB On-Off Ramps/Trask at Brookhurst	0.61	B	0.68	B
17	Brookhurst Street/SR-22 On-Off Ramps	0.72	C	0.80	C
18	Brookhurst Street/Westminster Avenue	0.83	D	0.84	D
19	Euclid Street/Chapman Avenue	0.85	D	0.90	D
20	Euclid Street/Garden Grove Boulevard	0.71	C	0.82	D
21	SR-22 WB Ramps-Havenwood/Trask at Euclid	0.60	A	0.73	C
22	Euclid Street/SR-22 Eastbound Ramps	0.61	B	0.86	D
23	Euclid Street/Westminster Avenue	0.87	D	0.88	D
24	Harbor Boulevard/Chapman Avenue	0.69	B	0.88	D
25	Harbor Boulevard/Garden Grove Boulevard	0.51	A	0.87	D
26	Harbor Boulevard/Banner-SR-22 WB Off-Ramp	0.86	D	0.89	D
27	Harbor Boulevard/Trask Avenue	0.83	D	1.16	F
28	Haster Street/Chapman Avenue	0.56	A	0.90	D
29	Haster Street/SR-22 WB Off-Ramp	0.64	B	0.71	C
30	Haster-SR-22 WB On-Ramp/Garden Grove Blvd.	0.72	C	0.78	C
31	Fairview-SR-22 EB On-Ramp/Garden Grove Blvd.	0.95	E	0.94	E

TABLE 4
LAND USE PLAN INTERSECTION LAND IMPROVEMENTS

#	Intersection	Northbound			Southbound			Eastbound			Westbound			ICU AM	ICU PM
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
1	Valley View Street/Chapman Avenue													0.72	0.79
2	Valley View Street/SR-22 WB On-Off Ramps					1								0.81	0.80
3	SR-22 EB Ramp-Valley View/Garden Grove Blvd.													0.75	0.74
4	Valley View Street/Garden Grove Boulevard		1			1								0.87	0.76
5	Knott Street/Chapman Avenue													0.62	0.78
6	Knott St.-Goldenwest St./Garden Grove Blvd.					1								0.89	0.86
7	Newland Street/Trask Avenue										1			0.73	0.81
8	Magnolia Avenue/Chapman Avenue	1			1		1	1			1			0.79	0.88
9	Magnolia Avenue/Garden Grove Boulevard	1			1		1	1						0.57	0.88
10	Magnolia Street/Trask Avenue-SR-22 On Ramp	1	1								1			0.80	0.86
11	SR-22 WB Off Ramp/Trask Avenue @ Magnolia													0.50	0.77
12	Magnolia Street/SR-22 EB On-Off Ramps			1	1	1								0.63	0.85
13	Magnolia Avenue/Westminster Avenue				1									0.75	0.88
14	Brookhurst Street/Chapman Avenue						1	1	1		1	1		0.60	0.88
15	Brookhurst Street/Garden Grove Boulevard													0.77	0.87
16	SR-22 WB On-Off Ramps/Trask @ Brookhurst													0.61	0.68
17	Brookhurst Street/SR-22 On-Off Ramps	1					1	1						0.72	0.80
18	Brookhurst Street/Westminster Avenue						1	1						0.83	0.84
19	Euclid Street/Chapman Avenue						1	1						0.85	0.90
20	Euclid Street/Garden Grove Boulevard													0.71	0.82
21	SR-22 WB Ramps-Havenwood/Trask @ Euclid	2	-1				1		1		1			0.60	0.73
22	Euclid Street/SR-22 Eastbound Ramps			1	1	1		1						0.61	0.86
23	Euclid Street/Westminster Avenue	1		1	1			1	1	1	1	1	1	0.87	0.88
24	Harbor Boulevard/Chapman Avenue	1	1	1	1	1		1			1		1	0.69	0.88
25	Harbor Boulevard/Garden Grove Boulevard	1	1		1	1		1			1			0.51	0.87
26	Harbor Boulevard/Banner-SR-22 WB off-ramp							1			1			0.86	0.89
27	Harbor Boulevard/Trask Avenue	1	1		1	1			1			1		0.83	1.16
28	Haster Street/Chapman Avenue	1	1	1	1	1		1	1	1	1	1		0.56	0.90
29	Haster Street/SR-22 WB Off Ramp													0.64	0.71
30	Haster-SR-22 WB On Ramp/Garden Grove Blvd.						1	1	-1	1	1	1		0.72	0.78
31	Fairview-SR-22 EB On Ramp/Garden Grove Blvd.	1	1					1	1	1			1	0.95	0.94

The lane improvements recommended above are in addition to the existing geometrics.

The source of the improvements are the Trask Corridor Project #770 and recommendations based on the General Plan modelling effort.

*General Plan Build-Out
Circulation Map*

purpose of these forums, as stated in the Measure M Ordinance, is “to cooperate in easing cumulative traffic impacts and coordinating improvements in transportation and other facilities at the inter-jurisdictional level.”

An approach to identifying the regional traffic issues and seeking solutions to the circulation impacts associated with the growth in regional traffic is to continue to participate in the GMP inter-jurisdictional forums. Continued participation is also a key determinant of compliance with GMP requirements and future Measure M funding allocations.

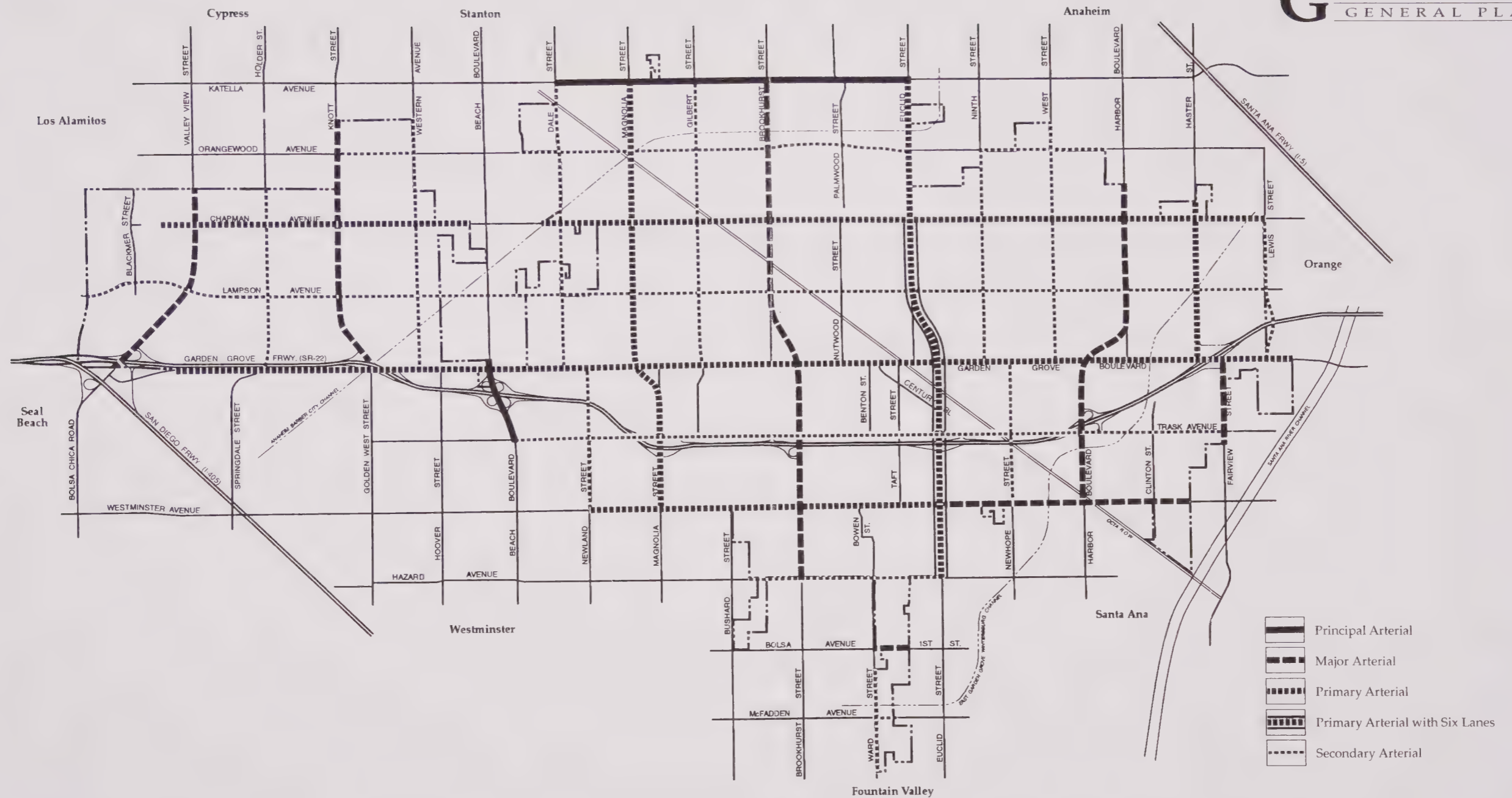
Exhibit 4, *Master Plan of Streets and Highways*, illustrates the Circulation Map for the City of Garden Grove. This Master Plan of Streets and Highways is consistent with the County Master Plan of Arterial Highways based upon arterial designation and future number of arterial lanes. The one addition to the Garden Grove Master Plan of Streets and Highways from the County of Orange Master Plan of Arterial Highways is the upgrade of Trask Avenue from a Secondary arterial to a Primary arterial. This designation will increase the theoretical capacity of this roadway from 25,000 ADT to 37,500 ADT and will ultimately provide additional capacity to accommodate the forecast build-out traffic volumes.






It is also noted that Euclid Street, a Primary arterial, is composed of six lanes between Chapman Avenue to Hazard Avenue (i.e., Major arterial standards). While no change in designation is recommended, the theoretical capacity of this roadway is reflective of the existing six-lane configuration.

Exhibit 5, *Typical Cross Sections*, presents the cross sections for each of the arterial designations. In addition, the theoretical capacities are also indicated.

Truck Routes

The City of Garden Grove has adopted a truck route system (Municipal Code 10.40 et. seq.) to provide access to those land uses requiring truck transportation, while protecting those land uses sensitive to the impacts of truck travel (i.e., noise, vibration, congestion, etc.). The truck route is illustrated in Exhibit 6, *Truck Route Map*, and is intended to designate those roadways for use by commercial vehicles exceeding a maximum gross weight of 6,000 pounds and with a maximum length from the kingpin to the rearmost axle not exceeding 38 feet (Municipal Code 10.40.030). In addition, “large truck routes” are also indicated for roadway designated for use by any commercial vehicle exceeding 38 feet in length from the kingpin to the rearmost axle. These arterials are part of the truck route, and include the following routes.



-  Principal Arterial
-  Major Arterial
-  Primary Arterial
-  Primary Arterial with Six Lanes
-  Secondary Arterial

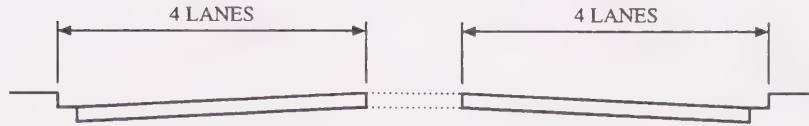
Source: LSA

Master Plan of Streets and Highways

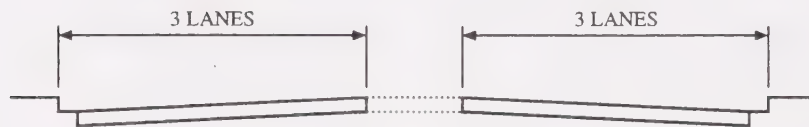
Exhibit 4



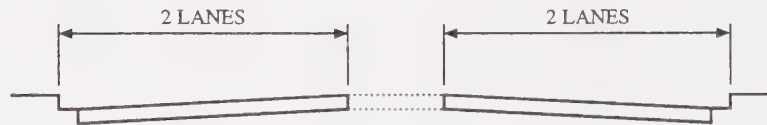
CLASSIFICATION



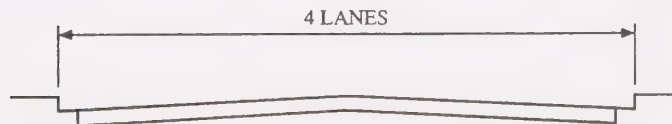
PRINCIPAL
8 Lane Divided Roadway
Accommodates 75,000 ADT at LOS E



MAJOR
6 Lane Divided Roadway
Accommodates 56,300 ADT at LOS E



PRIMARY
4 Lane Divided Roadway
Accommodates 37,500 ADT at LOS E

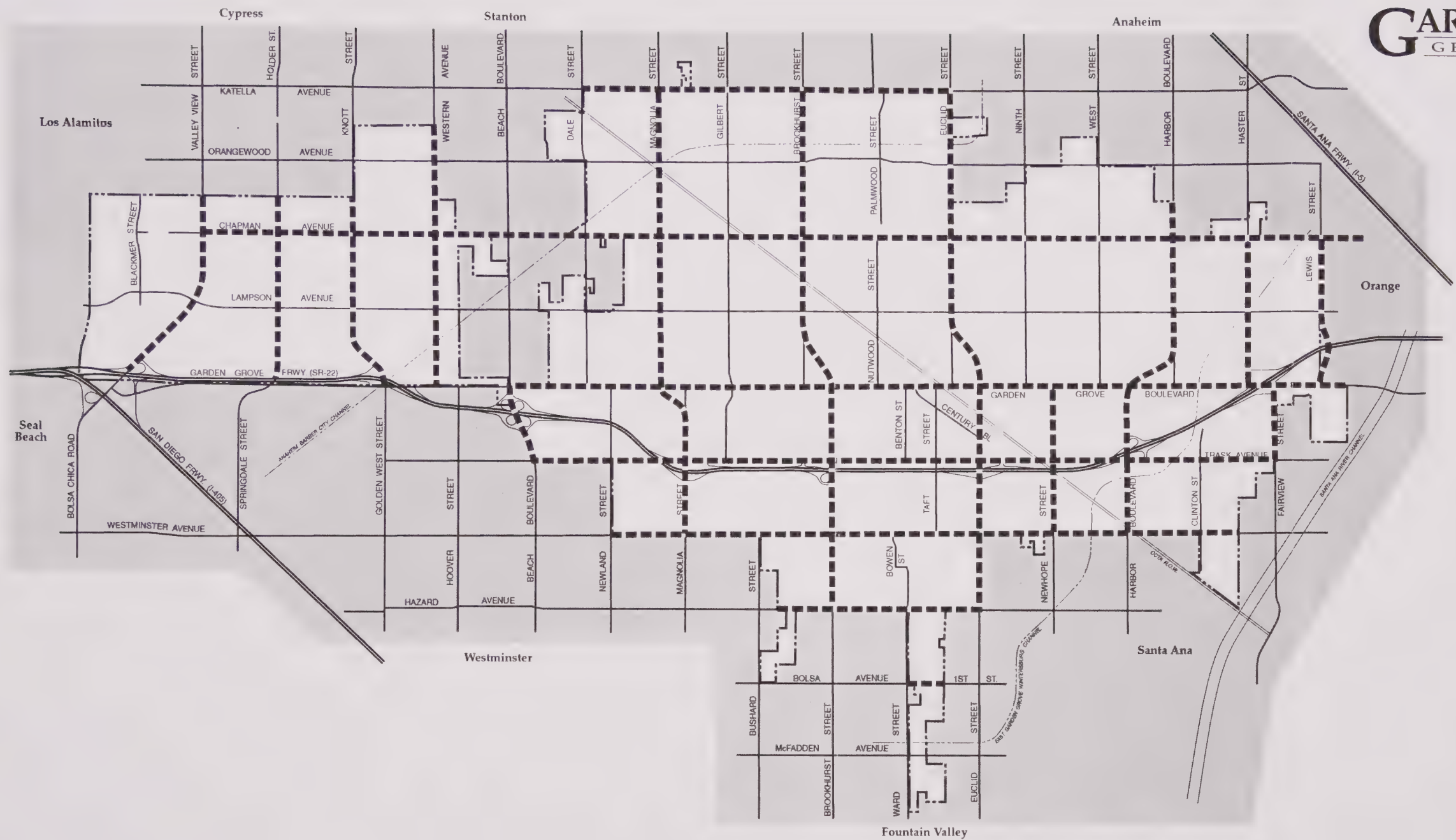


SECONDARY
4 Lane Undivided Roadway
Accommodates 25,000 ADT at LOS E

Source: LSA



Garden Grove Circulation Element Typical Cross Sections



Source: LSA and
Municipal Code 10.40.00

<u>Name of Street</u>	<u>Portion Affected</u>
Beach Boulevard	Garden Grove Boulevard, south to Trask Avenue
Brookhurst Street	Katella Avenue, south to Hazard Avenue
Chapman Avenue	Valley View Street, east to Beach Boulevard
Euclid Street	Garden Grove Blvd., south to Hazard Avenue
Garden Grove Blvd.	Knott Street, east to Beach Boulevard
Harbor Blvd.	Garden Grove Boulevard, south to Westminster Avenue
Katella Avenue	Dale Street, east to Euclid Street
Knott Street	City limits north of Orangewood Avenue, south to Garden Grove Boulevard
Valley View Street	City limits north of Chapman Avenue, south to Garden Grove Freeway
Western Avenue	City limits north of Orangewood Avenue, south to Garden Grove Boulevard
Western Avenue	Newland Street, east to Fairview Street

Transit Service

Local, fixed route bus service is provided along arterial streets in the City of Garden Grove. Bus stops are located for various routes along major travel corridors in the City of Garden Grove. Destinations throughout the County and to Los Angeles can be reached via the bus routes traveling through Garden Grove. A listing of the existing 1992 transit routes is provided below.

Bus Route	
<u>Number</u>	<u>Route Location</u>
25	Fullerton-Huntington Beach - via Knott/Goldenwest
29	Brea-Huntington Beach - via Beach Boulevard
33	Fullerton-Huntington Beach - via Magnolia
35	Fullerton-Huntington Beach - via Brookhurst
37	La Habra-Huntington Beach - via Euclid
43	Fullerton-Newport Beach - via Harbor
45A	Orange-Costa Mesa - via Fairview
47	Fullerton-Santa Ana - via Anaheim
50	Orange-Long Beach - via Katella/Studebaker
54	El Modena-Garden Grove - via Chapman
56	Santa Ana-Seal Beach - via Garden Grove Boulevard
56A	Santa Ana-Cypress - via Valley View
60	Tustin-Long Beach - via 17th/Westminster
64	Santa Ana-Seal Beach - via 1st/Bolsa
66	Tustin-Huntington Beach - via McFadden
141	Irvine-Anaheim - via Dyer/Newhope

161	Westminster-Huntington Beach - via Newland
529	La Habra-Huntington Beach - via Beach Boulevard
701	Huntington Beach-Los Angeles - via Lampson/605 Fwy

In addition to local fixed route bus service, an inter-county service line is provided along Route 701 from Huntington Beach to Los Angeles, with a stop along Garden Grove Boulevard.

A park and ride lot is provided for peak period commuters at the Church of the Nazarene, located along Euclid Street near SR-22.

Dial-A-Ride service is also provided on an on-call basis to residents of Garden Grove. Fixed routes are not part of the Dial-A-Ride program. Pick-up service is provided for seniors and disabled users. No other private bus systems or recognized paratransit providers operate in Garden Grove.

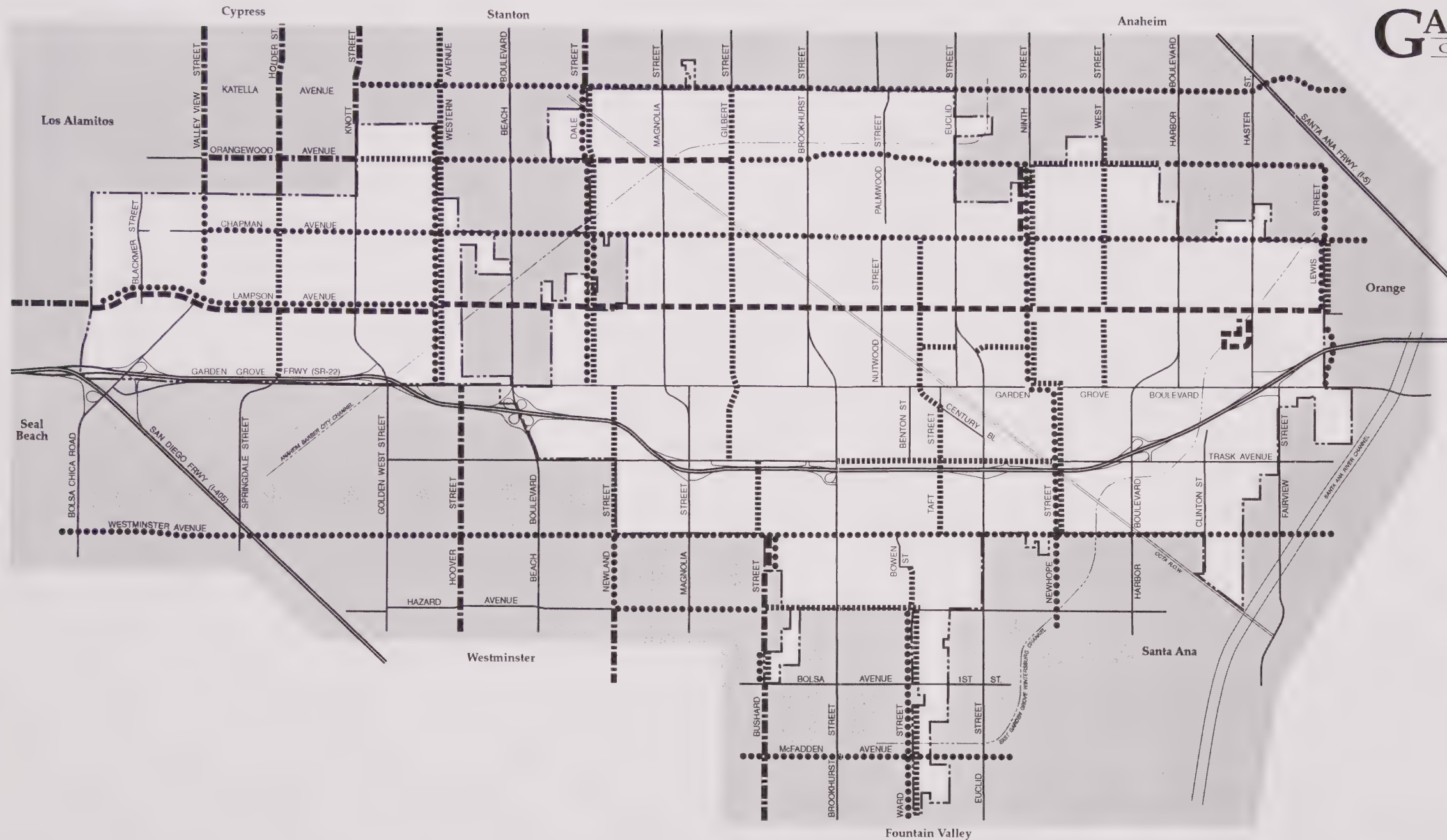
Bicycle and Pedestrian Facilities





With the increased popularity of cycling as a form of recreation and alternate transportation, the City of Garden Grove has established bicycle routes to meet the growing demand for safe places to ride bicycles. All proposed and existing bikeway routes in Garden Grove and the surrounding area are classified in three types of facilities, as shown on Exhibit 7, *Master Plan of Bikeway Facilities*. A Class I bicycle trail is a facility that is physically separated from a roadway and designated primarily for the use of bicycles. A Class II bicycle lane facility is a facility featuring a striped lane on the paved area of a road for preferential use by bicycles. A Class III bicycle route is a facility typically identified by green and white "Bike Route" guide signage only.

Currently, there are three existing bicycle routes along street segments in the City of Garden Grove. These bicycle routes are classified by the City as Class II bikeways. The three segments are:

- Lampson Avenue - western city limits to Western Avenue,
- Ninth Street - Orangetown Avenue to Chapman Avenue (west side only), and
- Bushard Street - south of Westminster Avenue to the southern city limit (east side only).

These Class II bicycle lane segments are located along the edge of the paved area outside the motor vehicle travel lanes, and are restricted to vehicular parking. However, if sufficient pavement exists the bicycle lane will be located between the parking lane and the outside motor vehicle travel lane. The three segments of bicycle routes in Garden Grove are characterized as bicycle facilities with typical widths of four feet (striping to curb), and widths of 12 feet (striping to curb) where on-street parking is permitted.



- CITY OF GARDEN GROVE**
-  Proposed Bikeway Facilities
 -  Existing Bikeway Facilities
- COUNTY OF ORANGE**
-  Proposed Bikeway Facilities
 -  Existing Bikeway Facilities

Source: City of Garden Grove Master Plan of Bikeway Facilities, July 1992

Master Plan of Bikeway Facilities



According to the City Master Plan of Bikeway Facilities, facilities that are most needed in Garden Grove are those proposed for Lampson Avenue, Orangewood Avenue, Ninth Street/Newhope Street, and Bushard Street. These routes have been proposed by the Orange County Environmental Management Agency (OCEMA) because they provide vital links to major activity centers, while allowing continuous travel from one regional route to another. Other routes needed, not in OCEMA's Master Plan, that would connect longer routes together, providing links to areas of the City not served by major routes, are routes along Springdale Street, Gilbert Street, and Ward Street.

Pedestrian facilities serve two primary purposes: transportation and recreation. Sidewalks are the fundamental pedestrian transportation facility, while trails serve the recreation function. In the County Master Plan of Arterial Highways, which includes the majority of arterial highways in the City of Garden Grove, right-of-way is provided for parkways and sidewalks. All Master Plan facilities provide for sidewalks as a means of pedestrian transportation. In addition, the existing City of Garden Grove General Plan includes a policy to require new construction, including subdivisions, to provide sidewalks. It is the objective of the City to provide a system of sidewalks in all areas of the City.

The major sidewalk program has been the voter approved sidewalks installation program. These sidewalks can be installed only on arterial streets within the City. For local residential streets, the residents may form special assessment districts to fund sidewalk installation.

Currently, there is no sanctioned walking or hiking trail system in the City of Garden Grove. Moreover, the County Master Plan of Riding and Hiking Trails does not include facilities in the City of Garden Grove.

Policy Framework

The City of Garden Grove will be required to show continued compliance with the county-wide Congestion Management Program (CMP). Currently, SR-22 Freeway, Valley View Street, Katella Avenue, Harbor Boulevard, and Westminster Avenue are arterials in the CMP Highway System. In addition, the intersections of SR-22/Harbor Boulevard and SR-22/Valley View Street are included in the highway system for level of service determination. Compliance with the CMP provisions include:

- Continued land use coordination through the utilization of standardized traffic impact analysis methodologies,
- Implementation and enforcement of Transportation Demand Management (TDM) strategies,

*Growth Management
Program/Measure M
Compliance*

- Maintenance of transit service standards,
- Demonstrated transportation modeling consistency with the County-wide computer model,
- Monitoring of CMP highway system levels of service,
- Development of level of service deficiency plans where applicable,
- Development of seven year capital improvement programs, and
- Monitoring and conformance with all CMP provisions.

Since the inception of the county-wide CMP guidelines, the City of Garden Grove has enjoyed compliance with all provisions of the program. The benefits of compliance with the CMP provisions include the allocation of the City's fair share of gas tax subventions collected by the State of California.

The Orange County Traffic Improvement and Growth Management Ordinance (Measure M) was approved by Orange County voters in November, 1990. Measure M authorized a one-half cent sales tax for transportation, which has been collected since April 1, 1991. The Orange County Transportation Authority (OCTA) estimates that Measure M will generate \$3.1 billion over the 20-year life of the ordinance. The revenues generated under this measure will be allocated through a variety of programs to fund freeway, transit, and local streets and roads projects throughout Orange County.

The Measure M Local Turnback Funds may be used for any operations, maintenance, or construction projects on the City's local streets and roads. In addition to local streets and roads projects, the City may use the Local Turnback Funds for any transportation purpose allowed for expenditure of tax revenues under Article XIX of the California Constitution.

Pursuant to Measure M policy requirements, cities in Orange County, including Garden Grove, must satisfy the following requirements to be eligible for receiving Measure M funds:

- Adopt a Growth Management Program into its General Plan that addresses the following:
 - Traffic level of service standards;
 - In developing areas only, planning standards for fire, police, library, flood control, parks and open space, and other items as determined by each jurisdiction;
 - A development mitigation program;
 - A development phasing and monitoring program;

- Participation in Inter-Jurisdictional Planning Forums;
 - Development of a Seven Year Capital Improvement Program;
 - Housing options and job opportunities; and
 - A TDM Ordinance.
- Adopt a Local TDM Ordinance.
 - Agree to expend all Measure M revenues within three years of receipt.
 - Adopt a Traffic Circulation Plan (General Plan Circulation Element) consistent with the Orange County Master Plan of Arterial Highways.
 - Adopt and fund a Local Pavement Management Plan.
 - Satisfy the Maintenance of Effort requirements.
 - Adopt a Seven Year Capital Improvement Program.

The City of Garden Grove has complied with the Measure M requirements, including adoption of a Growth Management Element (March 26, 1992) and a TDM Ordinance (April 23, 1991), and is eligible for Measure M revenues.

4.2 WATER INFRASTRUCTURE

The City's Water System Master Plan was prepared in 1986 to evaluate the City of Garden Grove's existing water system and determine its ability to serve the ultimate needs of the City. The City is currently updating their Water System Master Plan, it is anticipated that the updated Master Plan will be completed in late 1995.

The 1986 Plan and the Master Plan of Deficient Water Mains, updated in 1991, have identified the need for several improvements, many of which have been completed. These improvements range from the replacement of four-inch diameter pipes to six-inch diameter pipes and the installation of new water mains, to improvements related to the nitrate blending project, a project which blends high-nitrate well water with high quality groundwater in a City reservoir to lower nitrate levels.

Additional information can be found in Chapter Three, Circulation and Infrastructure, of the General Plan, and Sections 3.6.1, Water Resources, and 3.13.1, Water Infrastructure, of the Existing Conditions Report.

4.3 WASTEWATER INFRASTRUCTURE

The GGSD Sewage Collection System Master Plan prepared in October of 1988 identified deficiencies in the District's sewage collection system. Deficiencies identified in the Master Plan were based on ultimate build-out of the City, rather than existing conditions. The Master Plan concluded that approximately 35% of the wastewater system was deficient in capacity, requiring replacement or relief facilities. Recommended corrections to alleviate the deficiencies involved rehabilitation of the system, replacement of the deficient reaches, or providing relief facilities. Currently, any major project will require new accommodations "to the point of relief." Point of relief refers to piping sewage from a new project to the nearest County trunk line.

Many of the problems faced by the GGSD occur with the abuses of its sewer system. The population densities in some areas have created significant problems as have restaurants where hot grease has been poured down drains, causing them to clog.

Additional information can be found in Chapter Three, Circulation and Infrastructure, of the General Plan, and Section 3.13.2, Wastewater Infrastructure, of the Existing Conditions Report.

4.4 STORM DRAINAGE

The City of Garden Grove has in the past been subjected to extensive street flooding and occasional property damage, particularly during the 1960's and earlier. During the 1970's and 1980's a number of major backbone storm drains were constructed, which resulted in a reduced flood threat and improved traffic circulation during rainy periods. However, deficiencies still remain and consequently flooding is reported at some locations in the City almost every year.

In September of 1991 a Master Plan of Drainage was prepared for the City to serve as a tool for planning future drainage projects. The Plan identifies all needed storm drain facilities in the City. It also presents a construction priority ranking for those proposed drains that have been assessed to be strategic toward improving the City's drainage.

*Population Densities and
Restaurant Abuses Plague
GGSD*

*City is Naturally
Susceptible to Flooding*

Construction and improvements of storm drain structures as proposed by the Master Plan should help prevent future flooding. Construction of additional storm drains should also help prevent curblines from being inundated with flood water. Curblin inundation is not a direct threat to public safety; however, if access to fire hydrants is hindered by street inundation, fire fighting capability can be indirectly affected. Street circulation is also hampered, which in an emergency is vital.

Although the goal of the Master Plan of Drainage is to achieve ten year protection within City streets, on April 14, 1988 the City adopted Flood Plain Ordinance Number 2043, which specifies a 100-year flood protection level for the construction of any new buildings. This is consistent with Federal Emergency Management Agency (FEMA) policies and guidelines. (A substantial portion of the City lies within the Santa Ana River 100-year flood plain.) Private developments must ensure that public or private storm drains are constructed in conjunction with new developments to meet the goals of the master plan, in addition, these developments must provide 100-year flood protection for new buildings.

Additional information can be found in Chapter Three, Circulation and Infrastructure, of the General Plan, and Section 3.13.3, Storm Drainage, of the Existing Conditions Report.

5. GOALS AND POLICIES

ISSUE

Traffic flow throughout the City has become a significant concern of Garden Grove residents. Specific issues identified by residents relating to traffic flow include: signal synchronization; use of traffic control devices; coordination of Caltrans and City signal synchronization operations; and invasion of residential areas by peak hour commuter traffic.

GOAL

1. A transportation system that maximizes freedom of movement and maintains a balance between mobility, safety, cost efficiency of maintenance, and the quality of the City's environment.

POLICIES

The City should:

- 1.1 Develop a city-wide circulation system that is balanced with the future land use development anticipated in the General Plan Land Use Element.

- 1.2 Encourage a goal of Level of Service (LOS) D or better for arterial intersections under the jurisdiction of the City of Garden Grove.
- 1.3 Adopt typical street sections consistent with the County of Orange Master Plan of Arterial Highways (MPAH), and encourage their implementation.
- 1.4 Ensure that new development can be accommodated within the existing circulation system, or planned circulation improvements, such that the standard of LOS D is maintained.
- 1.5 Utilize the MPAH Cooperative Study process to amend the Circulation Element.
- 1.6 Continue to monitor land use development in adjacent cities to identify impacts and implement improvements to the Garden Grove circulation system.
- 1.7 Continue to monitor the railroad operations in the Central Industrial Area along the Stanton Line of the Southern Pacific Transportation Company to ensure that these operations do not inhibit traffic flow through the area.

Related goals and policies are found in the Land Use, Growth Management, and Noise Elements.

GOAL

2. Use of alternate forms of transportation generated in, and traveling through, the City of Garden Grove.

POLICIES

The City should:

- 2.1 Promote the use of public transit.
- 2.2 Provide appropriate bicycle access throughout the City of Garden Grove.
- 2.3 Provide appropriate pedestrian access throughout the City of Garden Grove.
- 2.4 Promote the use of Transportation Demand Management (TDM) Measures.
- 2.5 Encourage the development of mixed use projects as a means of reducing peak commute period traffic.

Alternate Forms of Transportation

*Improved Traffic
Conditions at, and Along
the Freeway*

Related goals and policies are found in the Land Use, Growth Management, Community Design, and Safety Elements.

GOAL

3. Improved traffic flows along the Garden Grove Freeway, as well as improved access along the Freeway, within the City of Garden Grove.

POLICIES

The City should:

- 3.1 Continue to coordinate with Caltrans to monitor and improve the interface between the City's circulation network with that of the State.
- 3.2 Continue to coordinate with adjacent cities and Caltrans to monitor all Freeway improvements.

GOAL

*Minimized Intrusion Into
Residential Neighborhoods*

4. Minimized intrusion of commuter traffic on local streets through residential neighborhoods.

POLICIES

The City should:

- 4.1 Conduct neighborhood circulation studies to determine the nature and extent of actual and perceived traffic through these areas.
- 4.2 Where feasible, create disincentives for traffic traveling through neighborhoods.
- 4.3 Prioritize circulation improvements that enhance through traffic flow on Major, Modified Major, Primary and Secondary Arterials that provide parallel routes to residential streets, in order to reduce through traffic during peak commute periods.

Related goals and policies are found in the Land Use and Community Design Elements.

ISSUE

*Access and Traffic Flow in
Parking Areas*

Ingress and egress to commercial centers and access within parking areas inhibit the flow of traffic.

GOAL

5. Adequate access to appropriate parking areas within the City.

POLICIES

The City should:

- 5.1 Design safe and efficient vehicular access to properties from arterial streets to ensure efficient vehicular ingress and egress.
- 5.2 Continue to evaluate the City's zoning ordinance to ensure that adequate parking, and access to that parking, is provided for all land uses.
- 5.3 Evaluate and determine restrictions for on-street parking along arterials in the City of Garden Grove.

Related goals and policies are found in the Land Use and Community Design Elements.

ISSUE

Truck traffic through the City and the parking of these vehicles are concerns shared by many residents.

GOAL

6. Minimized impacts associated with truck traffic through the City, as well as the parking locations of these vehicles.

POLICIES

The City should:

- 6.1 Continue to enforce the City's adopted truck route system.

ISSUE

The aesthetic quality of the City's streets has been overlooked in years past, there is a renewed pride evident in the community and a desire to enhance the City's image.

GOAL

7. Improved aesthetic quality and maintenance of arterial highways and local roadways.

POLICIES

The City should:

- 7.1 Strive to achieve adequate funding levels for street and parkway maintenance in each budgetary cycle.
- 7.2 Provide landscaped medians and greenbelts along major arterials, highways and freeways, when economically feasible.
- 7.3 Ensure the aesthetic quality and maintenance of facilities within the City under the jurisdiction of other agencies.
- 7.4 Target and prioritize street beautification programs along Major arterials within the City.

Related goals and policies are found in the Land Use, Noise and Community Design Elements.

ISSUE

There are a number of federal, state, regional and local transportation programs which provide funding to cities. Compliance with these programs is important to maintain funding sources. There is concern that some regional roadway improvement projects do not benefit the residents of Garden Grove. It is important that Garden Grove is represented in interjurisdictional programs which affect roadways within the City.

GOAL

- 8. Participation in regional transportation planning efforts to address interjurisdictional issues, and maintain competitive advantage in capital improvement funding programs, as appropriate.

POLICIES

The City should:

- 8.1 As appropriate, continue to comply with, and participate in, federal, state and regional planning efforts as a means of maintaining eligibility for future roadway funding.
- 8.2 Actively pursue federal, state and regional funds for local and regional roadway improvements.
- 8.3 Encourage employers to reduce employee-related travel.

Program Compliance

- 8.4 Examine the potential impacts to the community associated with county-wide street projects (i.e., effects on property values, increased noise and air quality impacts, potential improvement to marginal commercial areas, etc.).

Related goals and policies are found in the Air Quality, Noise and Growth Management Elements.

ISSUE

The City of Garden Grove is in compliance with the county-wide Congestion Management Program and the Orange County Traffic Improvement and Growth Management Ordinance (Measure M), as well as the Air Quality Management Plan. Continued compliance with these, as well as other, programs will ensure that the City receives revenues for a variety of infrastructure improvements.

GOAL

9. Continued compliance with regional congestion management, transportation demand, traffic improvement, air quality management, and growth management programs.

POLICIES

The City should:

- 9.1 Strive to facilitate compliance with the Congestion Management Program (CMP).
- 9.2 Continue compliance with Measure M.
- 9.3 Continue to investigate the possibility of park-and-ride facilities within the City.
- 9.4 Encourage employers to reduce employee-related travel.

Related goals and policies are found in the Air Quality and Growth Management Elements.

ISSUE

OCTA Right-of-Way

The OCTA right-of-way has been reserved for a potential alternative transportation system for several years. The community supports such a system along this alignment.

GOAL

10. Use of the OCTA right-of-way for alternative transportation systems.

POLICIES

The City should:

- 10.1 Coordinate with the OCTA to facilitate the potential development of an alternative transportation system along the OCTA right-of-way. The City shall support such a use while recognizing that any impacts to the community must be appropriately mitigated.

Related goals and policies are found in the Land Use, Noise, Community Design, Open Space/Conservation, and Parks, Recreation and Cultural Activities Elements.

ISSUE

The City's water and wastewater infrastructure is aging in many areas of the City. These important systems are vital to the well-being of a community, and must be maintained and improved to meet the needs of residents and the business community, alike. In areas targeted for intensification of land use this becomes even more important.

GOAL

11. Water and wastewater systems which meet the needs of the community.

POLICIES

The City should:

- 11.1 Continue to maintain these systems to ensure their longevity for as long as can reasonably be expected.
- 11.2 Continue to improve and replace aging systems to ensure the provision of these services to all areas of the community.
- 11.3 As development intensifies in areas of the City, ensure that infrastructure systems are adequate to accommodate any intensification of uses, as well as existing uses.

ISSUE

During peak winter storms, localized flooding damages properties and hinders travel along certain arterial streets.

GOAL

12. Minimized risk and damage from flood hazards within the City.

POLICIES

The City should:

- 12.1 Maintain siting and development standards to reduce risk and damage from flood hazards within the City.
- 12.2 Cooperate with local, State and Federal flood control agencies to reduce the potential for flood damage in the City of Garden Grove.
- 12.3 Increase public awareness of flood hazards.
- 12.4 Minimize the adverse effects of urbanization upon drainage and flood control facilities.
- 12.5 Ensure that areas experiencing localized storm drainage problems are targeted for storm drain improvements.

◆ APPENDIX A

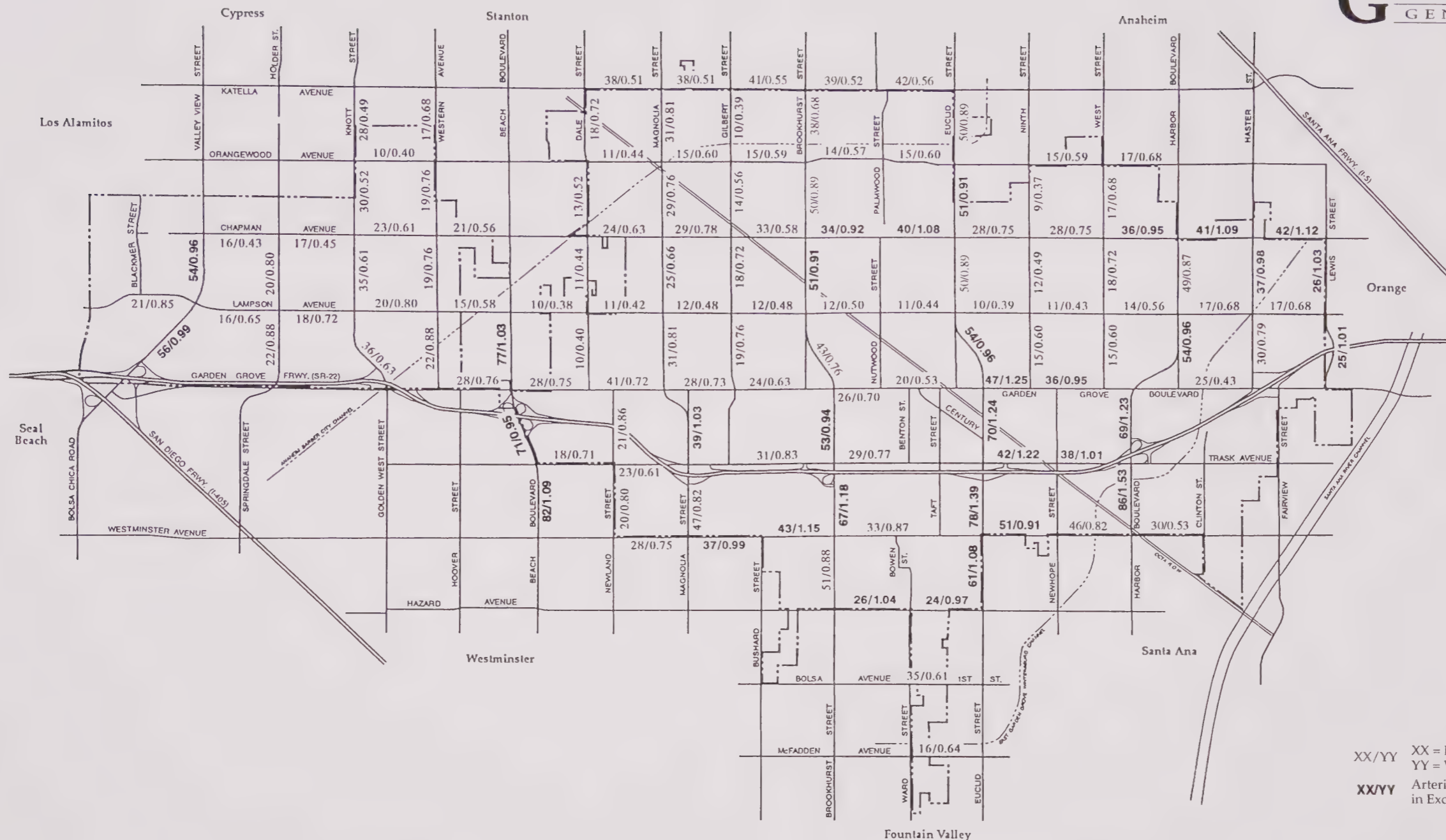
DISCUSSION OF GENERAL PLAN ALTERNATIVES

1.1 MODIFIED PROPOSED PLAN 1

Exhibit 1, *Modified Proposed Plan 1 Daily Traffic Volumes and Volume to Capacity Ratios*, presents the Modified Proposed Plan 1 daily traffic volumes and v/c ratios. The Modified Proposed Plan 1 reflects minor changes to the land use mix at selected locations. The circulation network is identical to the adopted Land Use Plan. The Modified Proposed Plan 1 daily traffic volume forecasts and v/c ratios are similar to the adopted Land Use Plan forecasts. Primary affected arterials include those routes to the SR-22 Freeway and individual isolated links in the City. Increases in the number of future arterial lanes and modifications to the Circulation Map are not warranted for this alternative.

1.2 MODIFIED PROPOSED PLAN 2

Exhibit 2, *Modified Proposed Plan 2 Daily Traffic Columns and Volume to Capacity Ratios*, illustrates the Modified Proposed Plan 2 daily traffic volume forecast and v/c ratios. This alternative includes the land use and circulation system as recommended in the R/UDAT study. Harbor Boulevard is designated as a high capacity commercial/entertainment corridor with tourism/entertainment uses located to the north near Katella Avenue, and retail/commercial uses located to the south near Garden Grove Boulevard. Furthermore, West Street has been realigned to link with Buaro and will become a major parallel corridor to Harbor Boulevard. The purpose of this realignment is to protect the neighborhood integrity along West Street. This alternative also includes the extension of Century southeast to the SR-22/Euclid Street freeway ramps.

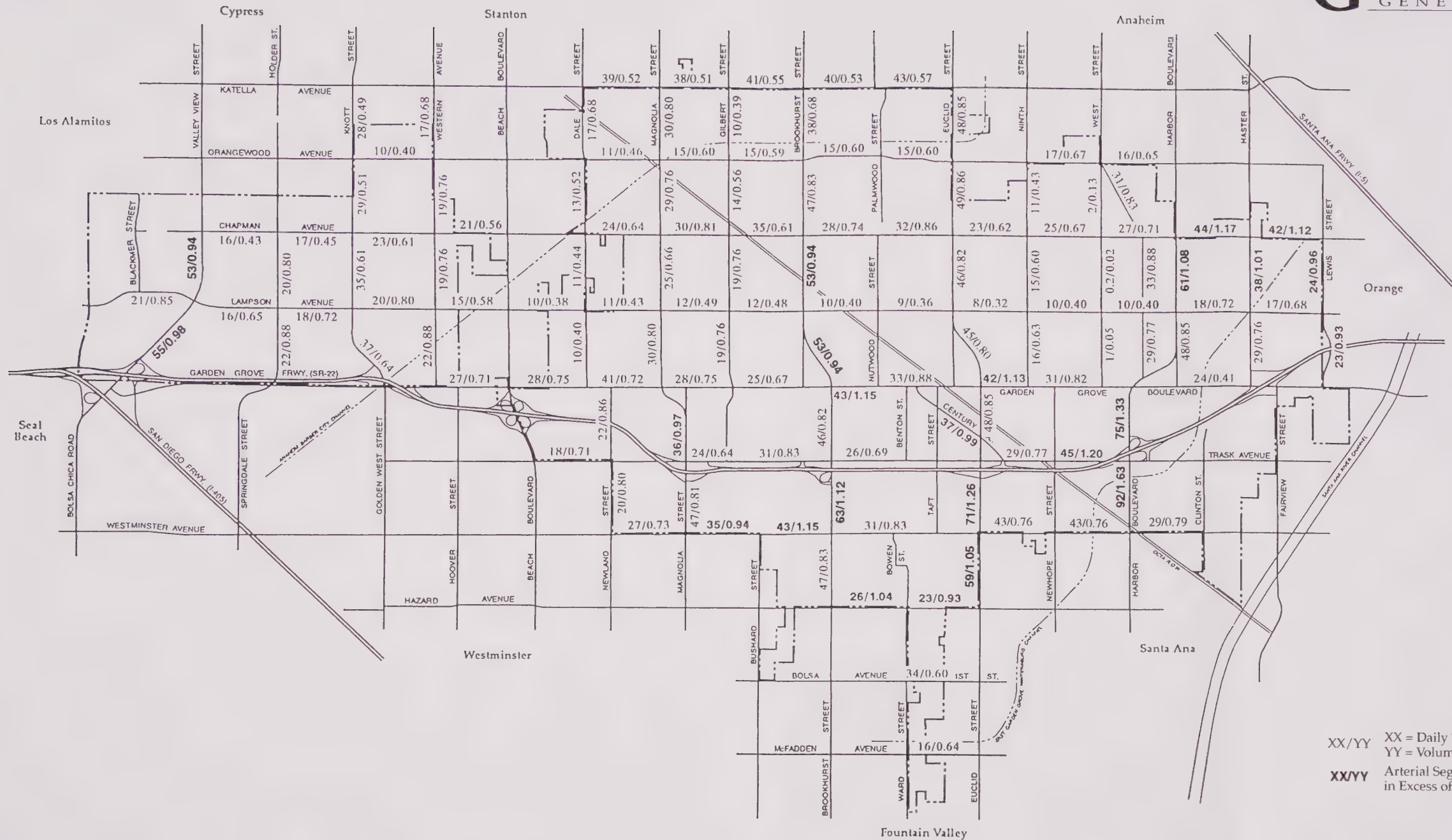


XX/YY XX = Daily Traffic Volume (in Thousands)
YY = Volume to Capacity Ratio

XX/YY Arterial Segments with V/C Ratios
in Excess of 0.90

Source: LSA

Modified Proposed Plan 1 Daily Traffic Volumes and Volume to Capacity Ratios



XX/YY XX = Daily Traffic Volume (in Thousands)
YY = Volume to Capacity Ratio
XXYY Arterial Segments with V/C Ratios
in Excess of 0.90

Source: LSA

Modified Proposed Plan 2 Daily Traffic Volumes and Volume to Capacity Ratios



GARDEN GROVE GENERAL PLAN

◆ HOUSING

The intent of this Housing Element is to provide information on housing needs, resources and constraints and to revise, as appropriate, existing goals, policies and priorities set forth previously by the City. In addition, another purpose of the Housing Element is to comply with the periodic updating requirements of Article 10.6. Moreover, the update process has provided an opportunity for the City to make the Housing Element consistent with the Redevelopment Agency's AB 1290 Housing Compliance Plan and the Proposed Draft Consolidated Plan.

1. INTRODUCTION AND SUMMARY

1.1 STATE HOUSING LAW REQUIREMENTS

A required General Plan element is the Housing Element. According to Article 10.6 of the Government Code:

The Housing Element shall consist of an identification and analysis of existing and projected housing needs and a statement of goals, policies, quantified objectives, and scheduled programs for the preservation, improvement, and development of housing. The Housing Element shall identify adequate sites for housing, including rental housing, factory-built housing, and mobilehomes, and shall make adequate provision for the existing and projected needs of all economic segments of the community.

Three major subjects must be covered in the Housing Element:

1. An assessment of housing needs and an evaluation of resources and constraints relevant to meeting these needs.
2. A statement of housing goals, quantified objectives and policies.
3. A housing program setting forth a 5-year schedule of implementation actions.

Technical Appendix A contains all of the data on housing needs, resources and constraints. The needs assessment includes information on projected housing needs, lower income households that are overpaying for housing, condition of existing housing and other households characteristics including an analysis of special needs. The assessment of constraints presents an overview of the governmental factors affecting the production and maintenance of housing. Technical Appendix A also contains an overview of market factors affecting housing costs and housing availability. Data from the Technical Appendix is summarized in this section of the Housing Element.

1.2 AUTHORITY FOR THE HOUSING ELEMENT

Housing elements were first mandated by legislation enacted 27 years ago in 1967. In 1977, "Housing Element Guidelines" were published by the State Department of Housing and Community Development (HCD). The "guidelines" spelled out not only the detailed content requirements of housing elements but also gave HCD a "review and approval" function over this element of the General Plan. In 1981, Article 10.6 of the Government Code was enacted, thereby establishing revised requirements. Article 10.6 placed the guidelines into statutory language and changed the HCD's role from "review and approval" to one of "review and comment" on local housing elements.

The intent of Garden Grove's Housing Element update is to provide information on housing needs, resources and constraints and to revise, as appropriate, existing goals, policies and priorities set forth in the 1989 document. In addition, another purpose of the Housing Element is to comply with the periodic updating requirements of Article 10.6. Moreover, the update process has provided an opportunity for the City to make the Housing Element consistent with the Redevelopment Agency's AB 1290 Housing Compliance Plan and the Proposed Draft Consolidated Plan.

1.3 RELATIONSHIP TO OTHER ELEMENTS

This Housing Element was prepared concurrently with the update of the City's General Plan. The Housing Element was prepared through an extensive citizen participation program and public hearing process. The updated Housing Element, which covers the 1995-2000 time period, proposes revised and new goals, policies, and action programs to improve the City's efforts to address a range of housing needs.

The adoption of the updated Housing Element will not cause a need to amend any of the other elements of the Garden Grove General Plan. Therefore, the City has determined that the goals and objectives of the updated Housing Element can be attained or implemented without the need for amendment to other Draft General Plan Elements. Consequently, the updated Housing Element is deemed by the City to be internally consistent with the balance of the Draft General Plan Elements.

2. HOUSING NEEDS AND CONSTRAINTS OVERVIEW

In the following paragraphs, a brief summary is provided of the major housing needs that must be analyzed in a community's housing element. Among the needs summarized are the condition of housing, new housing, lower income households that are overpaying and assisted housing at risk of conversion to market rate housing. In addition, a brief overview is provided of the constraints analysis. The information presented in this overview is only a brief summary of the data contained in Technical Appendix A. Each need and constraint category is analyzed in greater detail in the appendix.

2.1 NEW HOUSING NEEDS

The Housing Element must include a projection of the need for new housing for all income groups. The Southern California Association of Governments (SCAG) has yet to complete the allocation of the regional share of the

Statewide housing need to individual jurisdictions in the region. The SCAG region includes all the cities and unincorporated territory in Ventura, Los Angeles, Orange, Riverside, San Bernardino and Imperial Counties.

In order to provide a realistic appraisal of housing need, a projection was based on land availability in the City. The income distributions suggested by SCAG for all cities located in Orange County were used to construct Table 1, *Project Housing Needs Based on Residential Land Availability*.

2.2 LAND AVAILABILITY

State law requires an inventory of land suitable for residential development. The main requirement is that there is sufficient land to accommodate the City's share of regional need. According to a recently completed vacant land survey, there are 25 acres of vacant residential land and 86.1 acres of underutilized residential land. Therefore, there is a potential for an additional 2,726 units to be added to Garden Grove's housing stock without necessitating a zone change.

The total housing unit potential for *vacant residential land* is summarized below:

<u>Zoning Designation</u>	<u>Acres</u>	<u>Density Range</u>	<u>DU Capacity</u>
Low Density Residential	9	10 dus/ac	90
Medium Density Residential	1	24 dus/ac	24
High Density Residential	15	36 dus/ac	<u>540</u>
			654

Summary data on the housing unit potential in the City's underdeveloped areas is noted below.

<u>Zoning Category</u>	<u>Acres</u>	<u>Density</u>	<u>DU Capacity</u>
Low Density (1)	11.6	10	116
Medium Density (2)	60.5	24	1,452
High Density (3)	<u>14.0</u>	36	<u>504</u>
	86.1		2,072

- (1) *All acreage within a redevelopment area.*
- (2) *27.3 acres located within a redevelopment area.*
- (3) *All acreage located within a redevelopment area.*

Sources: City of Garden Grove, Housing Element, December 4, 1989. And Existing Land Use Inventory, completed by RBF, June, 1994.

TABLE 1
PROJECTED HOUSING NEEDS
BASED ON RESIDENTIAL LAND AVAILABILITY

Income Group	Number of Households	Percentage Distribution
Very Low	579	19
Low	457	15
Moderate	732	24
Above Moderate	1,280	42
T O T A L	3,048	100%

Source: Table construction by Castañeda & Associates.

2.3 COST BURDENED HOUSEHOLDS

A major housing need is experienced by households that pay more than they can afford for housing. For the Housing Element, state law requires that this need be estimated by the number of *lower income households that are spending 30% or more of their income on housing costs*. These households are referred to as cost burdened households.

As shown on Table 2, *Households Overpaying for Housing by Tenure and Income Group-1990*, there are an estimated 12,679 households very low and low income households paying more than 30% of their income on housing costs. Of this total, 3,524 were owners and 9,155 were renters.

2.4 GOVERNMENTAL CONSTRAINTS

The Housing Element must examine governmental factors for any possible impacts on the capacity to meet housing needs, particularly the production of new housing. The review of governmental constraints includes: land use controls (land use element and zoning ordinance); development standards; building code enforcement; site improvements; fees and other exactions; processing procedures and time; and other related standards and criteria. The analysis completed for the Housing Element indicated that these factors do not pose constraints on the development and production of housing.

An assessment also was completed of the probable development on vacant land given the typical size of vacant sites and the development standards. The average size of a vacant R-3 lot in the City of Garden Grove is approximately 21,095 square feet. According to the Zoning Code, this size lot would allow a maximum of eight dwelling units.

The typical vacant R-1 lot is approximately 20,000 square feet (20,340 S.F.). With minimum lot requirements ranging from 5,000 to 11,000 square feet, the number of units yielded from the typical vacant R-1 site ranges from 1.8 units to 4 units. Assuming a requirement of 6,000 square foot lots, the number of units allowed on a 20,000 square foot lot would be three units.

For single family residential units, there are minimum unit size requirements. One bedroom unit must be a minimum of 750 square feet, two bedroom units 900 square feet, and three or more bedroom units, 1,050 square feet. Meeting the unit size requirements is not difficult for the development of the typical vacant R-1 lot in Garden Grove.

Regarding setbacks, assuming a 60' wide (55' minimum) by 100' deep lot, the building area for a single family residence would be 3,000 square feet. Therefore, it would be easily possible to have a 3,000 square foot building foot print and still meet all setbacks, lot coverage and minimum unit size requirements.

TABLE 2
HOUSEHOLDS OVERPAYING FOR HOUSING
BY TENURE AND INCOME GROUP - 1990

Income Group	No. of Owners		No. of Renters		Total
	Households	%	Households	%	
Very Low	1,856	24.3	6,354	64.4	8,210
Low	1,668	21.8	2,801	28.4	4,469
Moderate	2,390	31.2	613	6.2	3,003
Above Moderate	1,741	22.7	99	1.0	1,840
TOTAL	7,655	100.0	9,867	100.0	17,522

Note: This table is based upon the information reported in the 1990 Census and a distribution of that information based upon the income threshold levels. All interpolations were computed by Castañeda & Associates. The data were grouped by the median income above and do not account for household size.

Source: State of California, State Census Data Center, 1990 Census of Population, Summary Tape File, Tables H-50 and H-59.

Table construction by Castañeda & Associates.

2.5 MARKET CONSTRAINTS

Section 65583(a)(5) of the Government Code requires that a local housing element incorporate an analysis of potential and actual non-governmental constraints including: availability of financing, price of land and construction costs. The assessment reviewed the probable costs of new residential development given the land availability; market rate land costs; average construction costs; and financing terms. The analysis indicated that market rate housing is generally available only to above-moderate income groups. To meet the needs of other income groups, the City has augmented the availability of financing with resources such as mortgage credit certificates and down payment assistance for first-time homebuyers.

2.6 HOUSING STOCK CONDITION

The age of a residential structure is a useful indicator of actual or potential housing improvement needs. According to the 1990 Census, about 40% of the City's stock is 30 years or older. About 55.3% of the occupied older stock of 50+ years is renter-occupied. About 12% of Garden Grove's housing stock was built during the decades of the 1980's. The median year in which structures were built was 1963 according to the 1990 Census. That is, the median age of the housing stock within Garden Grove was 27 years old in 1990. The age of housing data indicates that the City will need to continue the implementation of housing rehabilitation programs.

2.7 OVERCROWDING

Overcrowding most often reflects the financial inability of households to buy or rent housing units having enough space for their needs. Consequently, overcrowding is more appropriately considered a household characteristic (instead of a housing structural condition) and falls within the meaning of special housing needs much as large families are so considered. Overcrowding also may be a temporary phenomena since some households will move to larger housing units to meet space requirements.

Overcrowded households usually are estimated as the number of households with 1.01 or more persons per room, excluding bathrooms, kitchens, hallways, and porches. Severe overcrowding is measured as 1.5 or more persons per room. An "overcrowded" housing unit does not necessarily imply one of inadequate physical condition; rather, with fewer persons it becomes "uncrowded."

Data from the 1990 Census indicates that Garden Grove had 8,193 overcrowded households which means that 18.4% all of occupied housing units (44,538) were overcrowded. The overcrowding rate was much higher among renter (31.8%) than owner households (9.3 %).

2.8 AFFORDABLE HOUSING AT RISK OF CONVERSION TO MARKET RATE HOUSING

There are five federally- assisted housing developments in the City:

<u>Project</u>	<u>Units</u>	<u>Type</u>
Acacia Villa	160	Senior
Garden Grove Manor	78	Family
Westminster Arms	88	Family
Garden Manor	117	Senior
Jordan Manor	65	Senior

In June 1979, the Garden Grove Agency for Community Development entered into an agreement with Acacia Villa Apartments. This Agreement contained covenants which the Grantee agreed to devote the property to a very low-income senior citizen and handicapped persons housing project for a period ending December 31, 2021. According to the City's current Housing Element:

To date there has been no official notification to the City by the developer of any intention to convert this project and it is unlikely that this will occur because the developer is one of the largest subsidy holders in the nation which owns and maintains units for low-income seniors. On May 5, 1992, this was confirmed by Carol Gladney, Director of Property Management for Goldrich & Kest who indicated their intent to renew their Section 8 Agreement as long as they are available.

According to information provided by HUD, the Garden Grove Manor is a cooperative and owned by the tenants. It is not an "at-risk" project for purposes of the Housing Element analysis which is required of rental housing developments.

The Westminster Arms is covered by Federal legislation. According to information from the California Housing Partnership Corporation the current owners do not intend to prepay the mortgage. An official notice of the owners intent has not been submitted to HUD. According to data supplied by the California Housing Partnership Corporation, the owner of this project intends to extend the length of the assistance. HUD has indicated that the Garden Manor is a senior non-subsidized project.

Jordan Manor (11441 Acacia Parkway) is a 65-unit Section 202 senior housing development. The project is owned by a nonprofit entity and can not prepay its mortgage. The Section 8 rental assistance contract expires September 4, 2005. It is assumed that if the Section 8 program is available in the year 2005, that the nonprofit owner would seek to renew the Section 8 contract at that time.

Other affordable projects located in the City include Esperanza, Shelter for the Homeless, Valley View, Tudor Grove, and Grove Park. These five projects include a total of 317 affordable housing units. Table 3, *Units with Affordable Housing Covenants*, below identifies for each project the Agreement Date, Project Name, # of Affordable Units, Length of Affordability and Term of Affordability. None of the projects have housing covenants that will expire between 1995 and 2005.

3. GOALS, POLICIES AND QUANTIFIED OBJECTIVES

3.1 STATE HOUSING LAW REQUIREMENTS

Section 65583 (b) of the Government Code requires that Garden Grove's housing element include:

"A statement of the community's goals, quantified objectives, and policies relative to the maintenance, preservation, improvement, and development of housing."

The following definitions, developed by HCD, provide guidance on the meanings of these terms:

"Goals are general statements of purpose. Housing element goals will indicate the general direction that the jurisdiction intends to take with respect to its housing problems. While reflecting local community values, the goals should be consistent with the legislative findings (Section 65580) and legislative intent (Section 65581) of Article 10.6 and other expressions of state housing goals contained in the housing element law. Goals may extend beyond the time frame of a given housing element."

Policies provide a link between housing goals and programs; they guide and shape actions taken to meet housing objectives."

Quantified objectives are the maximum actual numbers of housing units that the jurisdiction projects can be constructed, rehabilitated, conserved and preserved over a five-year time frame. In order to more realistically plan for the implementation of housing programs, it is useful for localities to establish objectives for each housing program which will be implemented during the time

**TABLE 3
UNITS WITH AFFORDABLE HOUSING COVENANTS**

Agreement Date	Project Name	No. of Units	Years of Affordability	Term of Affordability
June 5, 1989	Esperanza	28	50	1989 - 2039
May 3, 1994	Shelter for the Homeless	5	15	1195 - 2010
July 1990	Valley View	36	30	1990 - 2020
January 28, 1992	Tudor Grove	144	30	1992 - 2022
January 28, 1992	Grove Park	104	30	1992 - 2022

Source: City of Garden Grove, Community Development, Neighborhood Improvement Division.

frame of the element. Objectives may therefore be short-term in outlook compared to community's goals." (emphasis added)*

3.2 GOALS

Goals are general statements that state what the City wants to achieve to maintain, preserve, improve and develop housing. Two categories of goals - general and specific - are stated below to guide the formulation of the City's housing policies and statement of quantified objectives.

1. General Goals

- Improve the condition of the existing standard affordable housing stock.
- Achieve an existing housing stock free of adverse substandard housing conditions.
- Ensure the long-term affordability of owner and rental housing units that obtain assistance from City, State or Federal funding sources.
- Achieve new housing development that meets the needs of all income groups and population segments.

2. Specific Goals

- Provide rental assistance to alleviate rental cost burden, specifically severe cost burden, experienced by lower income families and individual(s).
- Increase the supply of affordable housing through the acquisition and/or rehabilitation of both owner-occupied and rental units.
- Implement programs to achieve lower overall housing costs by reducing energy costs.
- Reduce lead-based paint hazards.
- Alleviate overcrowding through rental assistance and imposition of occupancy standards on all assisted housing.
- Minimize displacement of lower income households in the implementation of the City's housing programs.
- Meet the needs of large families, elderly persons and persons with disabilities.
- Promote homeownership opportunities through assistance to first-time homebuyers and provide for increased housing alternatives both within and outside of minority and low-income concentration areas.

- Promote new construction of affordable housing programs, both rental and owned, to insure no net loss in the affordable housing inventory as a result of demolition or conversion to homeownership, prepayment or voluntary termination of a federally-assisted mortgage.
- Address the needs of homeless individuals and families with children, preventing low-income individuals and families with children from becoming homeless, and providing unmet supportive housing needs to persons with special needs other than homeless.

3.3 POLICIES

Policies link the general goals and specific action programs. The policies stated below are based, in part, upon the City's current Housing Element and are consistent with the Redevelopment Agency's AB 1290 Housing Implementation Plan and the City's Proposed Draft Consolidated Plan.

1. Maintenance

- Strongly enforce the Building, Zoning and Property Maintenance codes.
- Support neighborhood efforts to eliminate crime, graffiti and poor maintenance practices.

2. Preservation

- Continue programs directed at preserving the physical quality of housing and neighborhood environments.
- Reduce the number of overcrowded housing units.
- Provide buffering, as appropriate, between residential neighborhoods and commercial and industrial development.

3. Improvement

- Focus the improvement programs in neighborhoods with the greatest needs.
- Promote the rehabilitation of substandard and deteriorating housing.
- Encourage homeowners who cannot afford to rehabilitate their homes to participate in home and neighborhood improvement programs.
- Implement public/private partnerships to improve existing older neighborhoods.

- Work with for profit and nonprofit developers in the acquisition and rehabilitation of rental housing.
4. Development
- Promote a balance of new housing according to tenure, dwelling type, price, density and type of amenities.
 - Ensure that land use and zoning standards provide sufficient flexibility to promote a wide range of housing types and densities.
 - Grant density bonuses and fee waivers for affordable housing developments on a project by project basis pursuant to the implementing procedures for such projects under the provisions of AB 1115.
 - Continue to provide opportunities for mixed land use developments through the Planned Unit Development Process.
 - Provide financial assistance to low and moderate income first-time homebuyers.
 - Support a change to the State housing law that would require the Southern California Association of Governments to prepare projections of a city's share of regional housing need over a 20-year period and to include a community's general plan build out as one factor in the allocation of housing need.
5. Additional Goals
- Promote the provision of adequate housing for households with special needs, including but not limited to, large families, handicapped persons, families with children, the elderly and the homeless.
 - Promote fair housing practices throughout the City.
 - Continue to provide rental assistance to very low income cost burdened households.

3.4 QUANTIFIED OBJECTIVES

The City's quantified objectives for the new construction and housing rehabilitation, conservation and preservation are stated in this sub-section. The quantified objectives are for the coming five-year period from 1995 to the year 2000.

1. New Construction
- Construction of 154 new affordable housing units for all segments of the population.

- Assistance to 100 low-, moderate- and middle-income families through the First-Time Homebuyer Program.
- 2. Housing Rehabilitation
 - Rehabilitation of 138 rental units in multi-family neighborhoods.
 - Rehabilitation of 185 owner units in single-family neighborhoods.
- 3. Housing Conservation
 - Rental assistance to 8,750 extremely low and very low income families, seniors and disabled persons (1,750 per year).
- 4. Housing Preservation
 - Preserve the continued affordability of all existing and future housing assisted by City, State and Federal resources.

The quantified objectives by income group are stated below:

	Very Low	Low	Moderate	Total
New Construction	34	44	76	154
First-Time Homebuyer				
Assistance	-0-	33	67	100
Rental Rehab	91	47	-0-	138
Owner Rehab	-0-	118	67	185

With regard to market rate new construction for above moderate income households, the quantified objective is 1,250 over the five year period. This objective is based on residential development trends that occurred during the past decade between 1985 and 1994. As indicated in the City's Consolidated Plan, the residential construction industry has passed through several cycles of activity with peak production periods between 1971 and 1973 and between 1977 and 1978. The high and low levels of construction activity are attributable to regional and national economic forces.

During the past 10 years residential construction has decreased from levels reached in the late 1970s and early 1980s. Based on building permit statistics, 1990 Census and State Department of Finance housing supply figures, it is estimated that between 250 to 280 housing units have been added annually to the City's housing stock during the past decade. Some of the housing supply added during this period were affordable housing units. Therefore, the 250 units per year figure was used as a basis to project the number of market rate units that could be built during the 1995-2000 time period.

4. FIVE-YEAR HOUSING PROGRAM

4.1 STATE HOUSING LAW REQUIREMENTS

According to Section 65583(c), the City's housing element also must include:

“A program which sets forth a five-year schedule of actions the local government is undertaking or intends to undertake to implement the policies and achieve the goals and objectives of the housing element through the administration of land use and development controls, provision of regulatory concessions and incentives, and the utilization of appropriate federal and state financing and subsidy programs when available and the utilization of moneys in a Low and Moderate Income Housing Fund of an agency if the locality has established a redevelopment project area pursuant to the Community Redevelopment Law. In order to make adequate provision for the housing needs of all economic segments of the community, the program shall” ... address specific needs. (emphasis added)

State housing law identifies six specific housing need categories that must be included in the City's housing program:

- ✓ Providing adequate sites to achieve a variety and diversity of housing.
- ✓ Assisting in the development of affordable housing.
- ✓ Removing governmental constraints if necessary.
- ✓ Conserving the existing stock of affordable housing.
- ✓ Promoting equal housing opportunity.
- ✓ Preserving “at-risk” housing.

The Housing Program describes actions that the City is undertaking or intends to undertake to implement the above-stated goals, policies and quantified objectives. The Housing Program description must include: an action program; identification of the responsible implementing agency; quantified objective (as appropriate); time schedule; and funding sources.

With regard to “responsible agency,” the Community Development Department of the City of Garden Grove is the lead department responsible for the preparation and implementation of the Housing Element. The Department is comprised of the Economic Development Agency, the Neighborhood Improvement Division, and the Housing Authority. It coordinates the redevelopment and economic activities of the City, develops and implements the programs that rehabilitate and preserves the neighborhoods in the City, develops and rehabilitates affordable housing, and provides rental assistance to the very low-income and special-needs segments of the City's population.

With respect to funding, the City's Housing Program is based on the anticipated availability of the following sources:

1. HOME Program Funds: \$600,000 per year
2. Community Development Block Grants (CDBG) Funds: \$2.1 million per year
3. Section 8 Rental Assistance: 1,750 certificates and vouchers each year
4. Redevelopment Agency Housing Set-Aside Fund: \$2.5 million per year

All of the above are estimates of the amounts anticipated annually from each of the major funding sources. The quantified objectives stated earlier are based on the assumption that these programs and funding levels will be continued through the year 2000.

The City has established a comprehensive housing program due to responsibilities established by Federal law and State redevelopment law. These responsibilities include the development of a Consolidated Plan for CDBG and HOME funds and a Housing Implementation Plan pursuant to California redevelopment law. As a result, the City has implemented programs which are directly related to the requirements of the State housing law. Therefore, the programs described below are a continuation of efforts that have been implemented over the years or initiated more recently due to availability of Federal HOME funds.

4.2 ADEQUATE HOUSING SITES

Section 65583(c)(1) states that a local housing element must:

"Identify adequate sites which will be made available through appropriate zoning and development standards and with public services and facilities needed to facilitate and encourage development of a variety of types of housing for all income levels, including rental housing, factory-built housing, mobilehomes, emergency shelters and transitional housing in order to meet the community's housing goals as identified in subdivision (b)."

1. Residential Land Use Element

Implementation of the updated Land Use Element of the General Plan will ensure that there are sufficient sites to accommodate the City's share of the regional housing need. Total build out of the City's residential land is projected to exceed 50,000 housing units. Four major categories of residential land use are included in the Land Use Element: low density; low medium density; medium density and mixed use. The quantified objective for market-rate housing during the program period is 1,650 housing units.

2. Emergency and Transitional Housing Sites

The City has identified residentially zoned land that is suitable for the development of emergency shelter or transitional housing facilities. The City has acquired and rehabilitated sites to serve the homeless. An eight unit apartment building was transformed into a homeless shelter through a partnership between the City, a non-profit corporation, and the Building Industry Association. Another building has been leased to Turning Point, a local non-profit agency, at a subsidized rate to serve the needs of runaway teenagers. These projects were funded by HOME and set-aside funds.

The City continues to work with the private sector and nonprofits, including CHDOs, to address the needs of homeless persons and families. A homeless strategy, using the "Continuum of Care" model is part of the Proposed Draft Consolidated Plan.

4.3 AFFORDABLE HOUSING

Section 65583(c)(2) of the Government Code mandates that a housing program shall:

"Assist in the development of adequate housing to meet the needs of low and moderate income households."

1. Section 8 Rental Assistance Program

The Garden Grove Housing Authority presently provides rental assistance to 1,513 very low income families, seniors and disabled persons, under the Section 8 Rental Assistance Certificate, Voucher, Project Based Certificate, and Section 8 Moderate Rehabilitation Programs. The five-year goal is for the Housing Authority to provide assistance to 1,750 extremely low and very low income persons and households each year from 1995 to 2000.

The participants in the above programs pay 30% of their adjusted income toward their rent and the Housing Authority pays the balance. Ceilings on the rental rates are established each year and are known as "fair market rents." Under these programs, the participants rent privately owned units anywhere in the City. Therefore, the Section 8 program does not involve public ownership of the rental property.

Currently, the Housing Authority assists households residing in 192 elderly units and 1,046 family units. The unit size distribution is as follows: 446 one-bedroom units, 679 two-bedroom units, 268 three bedroom units, 107 four bedroom units, 1 six bedroom unit, and 12 mobile homes. Of the 1,513 units receiving rental assistance, only one unit was vacant as of September 30, 1993.

2. Affordable Housing Construction

The City of Garden Grove will commit HOME, Redevelopment Housing Set-Aside and other available funding sources for the development of new and rehabilitated affordable housing for all segments of the population. Currently, the City is working with several developers, one of which is proposing to construct 51 senior housing units, to create affordable for-sale and rental projects throughout the community.

During the next five years, the City has allocated \$4 million to help construct 154 affordable housing units. The quantified objective for the next five years (1995-2000) are: 35 very low income units; 44 low income units; and 76 moderate income units.

3. MCC/MAP First -Time Homebuyers Program

The City plans to provide first-time homebuyer assistance to low, moderate- and middle-income families through its First-Time Homebuyer Program.

This program provides assistance through the utilization of Mortgage Credit Certificates (MCC's), and the City's Mortgage Assistance Program (MAP). The MCC Program provides households with a federal tax credit each year which reduces their income taxes. The credit is a dollar for dollar reduction of taxes owed. The credit, therefore, increases take-home pay that can be used towards monthly mortgage payments. The MAP provides a "silent-second" mortgage down payment of 10% of the value of the property, which is deferred for 30 years or until the first mortgage is paid in full.

4. Relocation/Family Self-Sufficiency First-Time Homebuyers Program

The City also provides homeownership opportunities to persons/households displaced by all governmental activities. For example, households displaced by the City's Rehabilitation Program are entitled to relocation assistance. All displaced households have the option of receiving their benefits over several years or in one lump sum. Taking the lump-sum option provides relocated families with the opportunity to make a down payment for purchasing a new home. Using this lump-sum relocation payment in conjunction with the City's First-Time Homebuyer Program provides an excellent opportunity for low-income families to purchase a home.

The City's First-Time Homebuyer Program also gives priority to persons/households that have completed the Housing Authority's Family Self Sufficiency Program. The monies available in the person's/household's Family Self Sufficiency Escrow account are used for the down payment, and the City's First-Time Homebuyer Program reduces the monthly costs of the purchase of the home to an affordable level.

5. Shared Housing

The Shared Housing Program links seniors willing to share their homes with other seniors of compatible housing needs and interests. This program provides both companionship and affordable housing for seniors. Over the past three years, the Senior Citizen Center staff has succeeded in implementing more than 300 matches. It is anticipated that during the next five years, additional matches will be successfully implemented.

4.4 GOVERNMENTAL CONSTRAINTS

Section 65583(c)(3) states that a local housing element must:

“Address and, where appropriate and legally possible, remove governmental constraints to the maintenance, improvement, and development of housing.”

1. Fast Track Processing

The City has established a fast-track processing schedule with priority to projects that provide affordable housing opportunities. The one-stop public counter enables most projects to be processed in six to eight weeks.

2. Development Standards

The City has and will continue to modify development standards, such as parking requirements, for moderate and low income housing projects. The Planned Unit Development(PUD) process has also been utilized to modify development standards.

3. Senior Housing (Second Units)

Senior housing units are permitted on R-1 single family residential lots subject to the approval of a Conditional Use Permit (CUP) and a site plan. The unit may be attached or detached from the existing dwelling provided it complies with all the development standards of the R-1 zone. If the unit is attached, it may not exceed 30% of the existing dwelling living area, or 640 square feet if detached. The unit can be occupied by one or two persons, provided that one is at least 62 years of age.

4.5 Conserve Affordable Housing

Section 65583(c)(4) states that a housing program shall describe actions to:

“Conserve and improve the condition of the existing affordable housing stock.”

The City's efforts view conservation and improvement at the scale of a neighborhood, not only individual units. In addition, a multi-pronged effort is continually implemented involving comprehensive enforcement of City codes, neighborhood conservation programs, and provision of financial incentives for the rehabilitation of owned and rental property.

1. Building Code/Zoning Code Enforcement

In order to ensure that the housing stock is maintained, the City has an active code and zoning enforcement and building inspection program. Code and zoning enforcement personnel periodically inspect neighborhoods, respond to complaints, and send notices to property owners requiring correction of violations. The enforcement program recruits eligible households to take advantage of the rehabilitation loan programs. During and after rehabilitation, building inspections are conducted to insure the existing structure and improvements are up to the City standards.

Building code enforcement activities which take place in low/moderate income areas are funded by CDBG, while all zoning code enforcement activities are funded directly by the City's General Fund. It is estimated that annually 60 Notice and Orders will be issued to multi-family properties in the City's low-income areas addressing approximately 5,000 building code violations.

2. Focus Neighborhood Program

Focus Neighborhoods are identified based upon various criteria including extent of overcrowding, crime statistics, and the age and condition of residential structures and public infrastructure and facilities within the neighborhood. Currently, the City has identified one single-family and nine multi-family focus neighborhoods. Once a focus neighborhood has been identified, Neighborhood Improvement Division staff market the available rehabilitation loan programs and implement other needed neighborhood improvement programs.

Neighborhood improvement programs are being implemented in only the Stuart Drive Focus Neighborhood and the Yucca-Sage Focus Neighborhood. This is due to limited staff and financial resources available to the Neighborhood Improvement Division.

3. Housing Rehabilitation Program

a). *Rental-Rehabilitation:* To meet the needs of the City's low-income small and large family renter households, the City provides financial assistance (HOME and Housing Set-Aside Funds) for the acquisition and rehabilitation of multi-unit rental complexes. Financial assistance will be

provided to non-profit housing developers specifically for the acquisition and rehabilitation of multi-family units. Financial assistance will also be provided for the necessary relocation of all tenants affected by such projects.

Acquisition/rehabilitation projects will provide rents affordable to low- and very-low income renters. If federal HOME funds are used, 90% of the units assisted will be made available to households with incomes below 65% of the Median Family Income (MFI), with 20% of those units set-aside for very-low income (<50%MFI) households. The remaining 10% of the units will be made available to low-income (<80%MFI) households. If redevelopment 20% Set-Aside funding is used, 20% of the units must be made affordable to very-low income households while the remaining 80% of the units will be affordable to low-income households.

The five year quantified objective for rental rehabilitation is 138 units: 91 very low income units and 47 low income units.

b). *Owner-Rehabilitation:* To facilitate housing rehabilitation in single-family neighborhoods, the City will use HOME, Housing Set-Aside and the California Housing Rehabilitation Program for Owner-Occupied Housing to increase the supply of affordable housing rehabilitation of owner-occupied units.

Through the Owner-Occupied Low Interest Loan program, eligible borrowers can obtain loans below market rate to correct substandard housing conditions. Loan origination and servicing is through local lending institutions. This program is funded by Redevelopment Set-Aside funds and is implemented by the Community Development Department.

Deferred Loans: Deferred loans are available to low and very low income households. A lien is placed against the property for the total amount of the loan, which is payable when the property is sold or transferred.

Rebate: A rebate program is utilized to encourage owners to make repairs and home improvements. A percentage of the total cost of the completed improvements is returned to the homeowner. This program is funded by Redevelopment Set-Aside funds and is administered by the Community Development Department.

4.6 PROMOTE HOUSING OPPORTUNITIES

Section 65583(c)(5) requires that the housing program:

“Promote housing opportunities for all persons regardless of race, religion, sex, marital status, ancestry, national origin, or color.”

1. Fair Housing Services

The City will continue to provide fair housing services to its residents. Annually, the City has contracted with the Fair Housing Council of Orange County (FHCOC) to provide these services. The FHCOC provides fair housing services that include: landlord/tenant dispute resolution, housing discrimination investigation, and community outreach to approximately 2,000 Garden Grove residents.

2. Fair Housing Needs Assessment

The Community Development Department studies special housing needs of the community in order to remove barriers for residents with special housing needs. These groups include seniors, the disabled, and large families. The City has completed a Fair Housing Needs Assessment per the CDBG program requirements.

4.7 PRESERVED ASSISTED HOUSING

Section 65583(c)(6) mandates that the housing program shall do the following:

“Preserve for lower income households the assisted housing developments . . . The program for preservation of the assisted housing development shall utilize, to the extent necessary, all the available federal, state, and local financing and subsidy programs except where a community has other urgent needs for which alternative funding sources are not available. The program may include strategies that involve regulations and technical assistance.”

Section 65583 of the Government Code, as amended, requires that all cities to include in their housing elements, an analysis and program efforts for preserving assisted housing developments. The purpose of the analysis is to identify actions the City can take to preserve units which are at risk of being converted to market use between 1995-2005, to adequately plan for preventing or minimizing tenant displacement and to preserve the local housing stock. None of the affordable housing units in the City are at risk of being converted to market rate use within the 10 year period between 1995-2005.

◆ APPENDIX A

PRELIMINARY DRAFT REPORT

GARDEN GROVE
HOUSING ELEMENT

TECHNICAL APPENDIX A --
HOUSING ELEMENT BASELINE ANALYSIS

January 1993

TABLE OF CONTENTS

SECTION	PAGE
INTRODUCTION	A-1
Required Areas of Analysis	A-1
Housing Element Setting	A-2
Report Organization	A-4
Data Resources	A-5
PROGRESS REPORT	A-7
Effectiveness of the Element	A-7
Progress in Implementation	A-9
Appropriateness	A-14
POPULATION, EMPLOYMENT AND PROJECTED NEEDS FACTORS	A-15
Population and Employment Trends	A-15
Population and Employment Projections	A-17
Projected Needs and Share of Regional Housing Need	A-20
HOUSEHOLD AND HOUSING CHARACTERISTICS	A-27
Level of Payment Compared to Ability-to-Pay	A-27
General Housing Characteristics	A-31
Overcrowding	A-34
Housing Stock Condition	A-36
SITE AVAILABILITY	A-38
Land Suitable for Residential Development	A-38
New Construction Sites	A-42
Public Services and Facilities	A-50
GOVERNMENTAL CONSTRAINTS	A-43
Land Use Controls	A-43
Building Codes and Their Enforcement	A-50
Required Off-Site and On-Site Improvements	A-53
Processing Requirements	A-53
Fees and Other Exactions	A-54
Constraints Analysis	A-55
NON-GOVERNMENTAL CONSTRAINTS	A-56
Availability of Financing	A-56
Price of Land	A-68
Cost of Construction	A-70
Owner Housing Costs	A-70
Rental Housing Costs	A-72
ESTIMATED DEVELOPMENT COSTS	A-74
ARTICLE 34	A-80
SPECIAL HOUSING NEEDS	A-81
Handicapped	A-81
Elderly	A-83
Family/Large Households	A-85
Farmworkers	A-86
Single-Parent/Female Headed Households	A-87
Families and Persons in Need of Emergency Shelter	A-87
ASSISTED HOUSING AT RISK OF CONVERSION TO MARKET RATE HOUSING	A-89
ENERGY CONSERVATION OPPORTUNITIES	A-91

LIST OF TABLES

TABLE	PAGE
A-1 Comparison of Key Indicators of Garden Grove and Adjacent Cities — 1992.....	A-3
A-2 Historic and Current Population — 1970 to 1992.....	A-15
A-3 Employed Residents by Industry — 1990.....	A-16
A-4 Population Projections — 1990 to 2020.....	A-18
A-5 Job Projections — 1990-2020.....	A-19
A-6 Share of Regional Housing Need — 1989 to 1994.....	A-23
A-7 Share of Regional Housing Needs — 1994-1999.....	A-24
A-8 Housing Unit Projections — 1990 - 2020.....	A-25
A-9 Projected Housing Needs Based on Residential Land Availability.....	A-26
A-10 Household Income by Tenure — 1990.....	A-28
A-11 Percent of Owner/Renter Households Overpaying by Income Level — 1990.....	A-28
A-12 Households Overpaying for Housing by Household Income and Tenure — 1990.....	A-29
A-13 Income Thresholds — 1990.....	A-30
A-14 Households Overpaying for Housing by Tenure and Income Group — 1990.....	A-30
A-15 Housing Stock Composition — 1992.....	A-31
A-16 Change in Tenure for Occupied Housing Units — 1980 vs. 1990.....	A-32
A-17 Change in Housing Stock Composition — 1980 vs. 1990.....	A-32
A-18 Occupancy Status of Housing Stock — 1990.....	A-33
A-19 Tenure by Units in Structure — 1990.....	A-34
A-20 Overcrowded Households by Tenure — 1990.....	A-35
A-21 Year Structure Built by Tenure — 1990.....	A-37
A-22 Summary of Vacant Land.....	A-40
A-23 General Residential Development Standards.....	A-45
A-24 CCSP Development Standards.....	A-48
A-25 Geographic Distribution of Loans by Census Tract — 1990.....	A-59
A-26 Geographic Distribution of Loans by Census Tract — 1991.....	A-60
A-27 Percent of Loans Denied — 1990 vs. 1991.....	A-62
A-28 Percent of Loans Approved — 1990 vs. 1991.....	A-62
A-29 Types of Loans.....	A-64
A-30 Breakdown of Size of Loan.....	A-64
A-31 Adjustable and Fixed Interest Rates for Conforming Loans December 26, 1991.....	A-65
A-32 Land Prices by Type.....	A-69
A-33 Value of Owner-Occupied Housing — 1990.....	A-70
A-34 Asking Prices for Resale Homes per the Sunday Edition of the Orange County Register — November 22, 1992 to December 13, 1992.....	A-71
A-35 Distribution of Contract Rents — 1990.....	A-72
A-36 Monthly Apartment Rents — 1992.....	A-73
A-37 Estimated Development Costs for Prototypical Projects.....	A-75
A-38 Status of Handicapped Persons by Sex and Age — 1990.....	A-82
A-39 Age/Sex Distribution of the Senior Population Aged 60+ — 1980.....	A-84
A-40 Age/Sex Distribution of the Senior Population Aged 60+ — 1990.....	A-84
A-41 Age of Householder by Tenure — 1990.....	A-85
A-42 Household Size Distribution — 1990.....	A-86

LIST OF CHARTS

<u>CHART</u>	<u>PAGE</u>
A-1 Housing Element — Progress in Implementation — 1989-1993.....	A-10
A-2 Regional Housing Needs Plan Procedures.....	A-22
A-3 Census Tract Conversion.....	A-63
A-4 Proforma Analysis — Explanation of Terms.....	A-76

INTRODUCTION

The State housing law requires that this element of a general plan include a considerable amount of information. Most of the data required by State law have been included in this Technical Appendix. More specifically, a local housing element must contain a "progress report", an assessment of existing and projected "housing needs" and an inventory of "resources and constraints". All of the data and analysis pertaining to these three requirements have been included in this Baseline Analysis.

This introductory section of the Baseline Analysis includes: 1) an explanation of the required areas of analysis; 2) a description of the regional, sub-regional and local setting; 3) an explanation of the report organization; and 4) a list of the data resources used to prepare the Technical Appendix.

Required Areas of Analysis

Progress Report

The updated Housing Element will cover the time period of July 1994 to June 1999. State law requires that the City adopt a Housing Element in "substantial compliance" with State law by July 1, 1994. An updated housing element, per Section 65588(c) of the Government Code, mandates that a "review" be made of the City's current Housing Element. The review must include an evaluation of the "effectiveness of the element"; "progress in implementation"; and "appropriateness of goals, objectives and policies". The Progress Report is presented on pages A-12 to A-19.

Needs Assessment/Inventory of Resources and Constraints

According to Article 10.6, Section 65583 (a), of the Government Code, a housing element must contain: "An assessment of housing needs and an inventory of resources and constraints relevant to the meeting of these needs." The assessment and inventory includes:

1. Analysis of population and employment trends and documentation of projections and a quantification of the locality's existing and projected housing needs for all income levels. These existing and projected needs shall include the locality's share of the regional housing need in accordance with Section 65584. (Pages A-20 to A-32)

2. Analysis and documentation of household characteristics, including level of payment compared to ability to pay, housing characteristics, including overcrowding, and housing stock condition. (Pages A-33 to A-43)
3. An inventory of land suitable for residential development, including vacant sites and sites having potential for redevelopment, and an analysis of the relationship of zoning and public facilities and services to these sites. (Pages A-44 to A-50)
4. Analysis of potential and actual governmental constraints upon the maintenance, improvement, or development of housing for all income levels, including land use controls, building codes and their enforcement, site improvements, fees and other exactions required of developers, and local processing and permit procedures. (Pages A-51 to A-63)
5. Analysis of potential and actual non-governmental constraints upon the maintenance, improvement, or development of housing for all income levels, including the availability of financing, the price of land, and the cost of construction. (Pages A-64 to A-89)
6. Analysis of any special housing needs, such as those of the handicapped, elderly, large families, farmworkers, families with female heads of households, and families and persons in need of emergency shelter. (Pages A-90 to A-98)
7. Analysis of assisted housing at risk of conversion to non low-income uses." (Pages A-99 to A-101)
8. Analysis of opportunities for energy conservation with respect to residential development. (Pages A-102 to A-103)

Housing Element Setting

Regional Setting

For housing element purposes, the City is located within the regional area of the Southern California Association of Governments (SCAG). State law requires that SCAG prepare estimates and projections of housing need for use by local jurisdictions. The SCAG region includes the area encompassed by the six counties of Ventura, Los Angeles, Orange, Riverside, San Bernardino and Imperial.

As of January 1992, the regional population total was 15,224,160 according to the State Department of Finance figures. Orange County's share of the regional population total was

2,512,198 or 16.5% of the six-county total. Garden Grove's share of the regional population total was almost 1% (.9726).

Sub-Regional Setting

For housing element purposes, SCAG has divided the six county regional area into 38 sub-regions. Orange County consists of two sub-regions — Northwest and Southeast. The City is located in the Northeast sub-region. Current population and housing data for the Northwest Orange County sub-regional area have yet to be published by SCAG.

Some of the cities adjacent to Garden Grove include: Anaheim; Orange; Santa Ana; Stanton; and Westminster. All of these cities are located in the Northwest sub-region. Table A-1 below compares Garden Grove with its adjacent cities with regard to several key population and housing indicators.

**TABLE A-1
CITY OF GARDEN GROVE
COMPARISON OF KEY INDICATORS OF
GARDEN GROVE AND ADJACENT CITIES — 1992**

Key Indicator	Garden Grove	Anaheim	Orange	Stanton	Santa Ana	Westminster
Total Pop.	148,065	279,408	114,489	31,367	304,857	79,937
Household Pop.	146,005	275,088	110,573	30,922	297,344	79,572
Total Hsg. Units	46,415	95,187	38,875	10,797	75,150	25,949
SFD's	29,497	46,643	25,672	4,538	39,085	16,332
2-4 Units	3,457	9,816	5,044	1,088	7,320	1,976
5 +	11,517	34,424	6,945	3,493	24,922	4,724
Mobilehomes	1,944	4,304	1,214	1,378	3,829	2,917
Occupied	44,971	89,351	37,536	10,364	71,926	25,156
% Vacant	3.11%	6.13%	3.44%	4.01%	4.29%	3.06%
Persons/Household	3.247	3.079	2.946	2.984	4.134	3.163

Source: State Department of Finance, Demographic Research Unit, California Annual Population and Housing Data, January 1992.

Table construction by Castañeda & Associates.

Local Setting

Garden Grove is the fourth largest City in Orange County. The City now has 92% of the housing units it is projected to have by the time build-out is reached. From a transportation standpoint, the City has several prominent corridors such as north-south arterials of Harbor Boulevard and Euclid, Brookhurst and Knott Avenues; and the east-west corridors of Garden Grove Boulevard and Chapman and Westminster Avenues. These arterials provide easy access to the freeway network including Interstate 5, Garden Grove Freeway (22) and Orange Freeway (57).

Garden Grove, as of January 1992, had a population of 148,065 and a housing supply consisting of 46,415 dwelling units. The percentage distribution by type was: single-family, 63.6%; 2 to 4-unit structures, 7.4%; 5+ unit structures, 24.8%; and mobilehomes, 4.2%.

The City's employment base was estimated at 47,691 jobs in 1990 or about 3.7% of the Orange County total. In addition, the City is located near the large employment base located in northwest Orange County and downtown Los Angeles.

The potential for new growth within Garden Grove is limited. The majority of the land presently vacant is located in specific plan areas and the sites are usually small infill properties. As a result, new growth most likely will be the result of recycling and redevelopment.

Report Organization

The Baseline Housing Analysis is organized to present information on the following major topics:

- √ A progress report on the effectiveness, level of achievement, and appropriateness of the City's current Housing Element which was initially adopted in 1989.
- √ An analysis of population and employment trends and projections, including Garden Grove's share of the regional housing need.
- √ Data on household and housing characteristics such as "cost-burden" households and overcrowding.

- ✓ An assessment of land available to accommodate the City's projected housing needs.
- ✓ An inventory of governmental constraints such as land use controls and local fees.
- ✓ A description of nongovernmental constraints such as land and construction costs and the availability of financing.
- ✓ A financial analysis of the developments costs attributable to the combined effects of governmental and nongovernmental constraints.
- ✓ An assessment of special housing needs of population groups such as the elderly and large families.
- ✓ A description of energy conservation opportunities in new residential development.
- ✓ An assessment of the City's affordable housing stock at-risk of converting to non low income uses.

Data Resources

In order to complete the Housing Baseline Analysis, information was compiled from several resources. The valuable data resources are listed on the next page.

1. California Debt Advisory Commission, Annual Summary 1991: The Use of Housing Revenue Bond Proceeds, November 1991.
2. California Department of Finance, Demographic Research Unit, California Annual Population and Housing Data, January 1992.
3. California Housing Partnership Corporation for the California Coalition for Rural Housing, Inventory of Federally Subsidized Low Income Rental Units at Risk of Conversion, 1992.
4. City of Garden Grove, Community Center Specific Plan, June 1985.
5. City of Garden Grove, Comprehensive Housing Affordability Strategy, October 1991.
6. City of Garden Grove, Harbor Corridor Specific Plan, June 1985.
7. City of Garden Grove, Housing Element, November 1989.
8. City of Garden Grove, Vacant Land Survey, January 1989.
9. City of Garden Grove, Zoning Code.

10. County of Orange, 1980 Census Report Volume 3B, Table 1, March 1982.
11. Orange County Administrative Office (CAO), Orange County Projections, 1992, June 1992.
12. National League of Cities, Local Officials Guide to the Community Reinvestment Act, Washington, 1991.
13. Patsy Yotgukura, Realty World — Orco Properties. Multiple Listing Service, December 1992.
14. Southern California Association of Governments, Regional Housing Needs Assessment, December, 1989.
15. Southern California Association of Governments, Regional Growth Management Plan, February, 1989.
16. State Department of Housing and Community Development, HCD Determinations of Existing and Projected Housing Needs for the SCAG Region, June 1992.
17. State of California, State Census Data Center, 1990 Census of Population and Housing, Summary Tape Files 1 and 3.
18. The Orange County Register. "Real Estate Spectrum of the Classified Advertisements", November 22, November 29, December 6 and December 13, 1992.
19. The Orange County Register. "Table of Interest Rates: Adjustable and Fixed Interest Rates for Conforming Loans", December 26, 1992.
20. TRW REDI, Summary of Total Mortgages Records, September 1992.
21. U.S. Department of Thrift Supervision, Home Mortgage Disclosure Act Data. Table 1: Disposition of Loan Applications by Location of Property and Loan Type, 1990 and 1991.
22. Existing Land Use Inventory, prepared by Robert Bein, William Frost & Associates, June, 1994.

PROGRESS REPORT

Section 65588(a) of the Government Code requires that the City review the current Housing Element to evaluate:

- √ “Effectiveness of the element” (Section 65588[a][2]): A comparison of the actual results of the earlier element with its goals, objectives, policies and programs. The results should be quantified where possible (e.g., rehabilitation results), but may be qualitative where necessary (e.g., mitigation of government constraints).
- √ “Progress in implementation” (Section 65583[a][3]): An analysis of the significant differences between what was projected or planned in the earlier element and what was achieved.
- √ “Appropriateness of goals, objectives and policies” (Section 65588[a][1]): A description of how the goals, objectives, policies and programs of the updated element incorporate what has been learned from the results of the prior element.

Effectiveness of the Element

The City’s current Housing Element covers the time period from mid-year 1989 to mid-year 1994. Therefore, the analysis of effectiveness reviews the “actual results” from mid-year 1989 to early 1993. Where possible, effectiveness is extrapolated to mid-year 1994.

There are five major needs that must be addressed by the City’s housing goals, objectives, policies and programs:

- √ Conservation of the City’s existing affordable housing stock.
- √ Provision of assistance to the development of low and moderate income housing.
- √ Provision of housing sites adequate to meet the City’s share of regional housing needs.
- √ Removal of governmental constraints.
- √ Promotion of equal housing opportunities.

With respect to the “conservation of existing affordable housing”, the Housing Element has guided several specific actions pertaining to housing assistance and improvement. The Section 8 rental assistance program, which is administered by the Garden Grove Housing Authority, conserves housing affordability for 1,050 very low income households. The “shared housing” program has made 341 matches, thereby reducing housing costs for lower income households. About 700 housing units have been improved through the City’s housing rebate and rehabilitation programs.

In addition to the above, the City has adopted a property maintenance ordinance with standards for home maintenance practices to improve neighborhood appearance. Another program, relating to code enforcement, has resulted in the processing of more than 16,000 cases. The City also administers several other on-going programs to correct and prevent blighted neighborhoods.

Major results in the area of assisting in the development of affordable housing have evolved from a mortgage revenue bond program; Section 202 program; and land acquisition. These programs have resulted in the development of 322 mortgage revenue bond assisted units and a 65-unit senior citizen project. In addition, three acres have been acquired and two more are proposed to be acquired for affordable housing.

With regard to the provision of adequate housing sites, the City has designated sufficient sites to meet Garden Grove’s share of the regional housing need. Because of economic conditions during the past 21/2 years construction activity has not been extensive in the City.

The City has eliminated inconsistencies between the General Plan/zoning in order to remove a governmental constraint. Finally, the City continues to contribute financial resources to the Orange County Fair Housing Council.

Based on all of the above data, the actual results demonstrate the effectiveness of the current Housing Element. New residential construction has lagged but this is due to economic conditions not because of any City actions.

Progress in Implementation

The City has made significant progress in achieving the planned levels of program activity. A summary of the progress in implementation is presented in Chart A-1. Since only 3 1/2 of the 5-year program period have elapsed not all quantified objectives have yet to be attained. A brief narrative summary of program activity is presented in the following list:

1. The Section 8 housing assistance program annually assists 1,050 very low income households. This program, which is funded by the U.S. Department of Housing and Urban Development (HUD), is administered by the Garden Grove Housing Authority.
2. The Shared Housing Program links seniors willing to share their homes with other seniors of compatible housing needs and interests. This program provides both companionship and affordable housing for seniors. Over the past three years, the Senior Citizen Center staff has succeeded in implementing 341 matches.
3. Through the Owner-Occupied Low Interest Loan program, eligible borrowers can obtain loans below market rate to correct substandard housing conditions. Loan origination and servicing is through local lending institutions. This program is funded by redevelopment set-aside funds and is implemented by the Community Development Department.
4. Deferred loans are available to low and very low income households. A lien is placed against the property for the total amount of the loan, which is payable when the property is sold or transferred.
5. A rebate program is utilized to encourage owners to make repairs and home improvements. A percentage of the total cost of the completed improvements is returned to the homeowner. This program is funded by redevelopment set-aside funds and is administered by the Community Development Department. This program has been very successful with 389 units rehabilitated over the past three years.
6. Section 8 moderate rehabilitation funds have been used to halt the deterioration of aging rental units in high density areas. This program, which was administered by the Housing Authority, rehabilitated 104 units before the program was discontinued by HUD.

**CHART A-1
GARDEN GROVE HOUSING ELEMENT
PROGRESS IN IMPLEMENTATION — 1989-1993**

Program Category	Planned Action	Level of Achievement
Conserve Existing Affordable Housing	#1 Continue to utilize Section 8.	Ongoing; approximately 1,050 very low income households assisted per year.
	#2 Continue Shared Housing Program.	Ongoing; 341 matches have been made. _____ are anticipated by 1994.
	#3 Continue Owner Occupied Low Interest Loan Program.	Ongoing; 128 units rehabilitated. _____ additional units are anticipated to be re-
	#4 Continue deferred loans.	Ongoing; 40 units rehabilitated. 50 additional units are anticipated to be rehabilitated by 1994.
	#5 Continue rebate program.	Ongoing ; 389 units rehabilitated. 300 additional units are anticipated to be rehabilitated by 1994.
	#6 Continue rental rehabilitation.	Ongoing; 40 units rehabilitated. 30 additional units to be rehabilitated by 1994.
	#7 Utilized Moderate Rehabilitation Program.	104 units rehabilitated from 1989-1991. Program no longer available from HUD.
	#8 Continue code enforcement.	Ongoing; 16,152 cases. 10,640 cases anticipated by 1994.
	#9 Continue neighborhood clean-up.	Ongoing; 30 campaigns conducted. 20 more campaigns anticipated by 1994.
	#10 Continue Garden Grove Pride Program	Ongoing

CHART A-1 CONTINUED
GARDEN GROVE HOUSING ELEMENT
PROGRESS IN IMPLEMENTATION — 1989-1993

Program Category	Planned Action	Level of Achievement
Conserve Existing Affordable Housing <i>Continued</i>	#11 Utilized neighborhood improvement committees.	Ongoing
	#12 Utilized public relations and program marketing.	Ongoing
	#13 Continue CDBG neighborhood improvements.	Ongoing
	#14 Continue graffiti abatement.	Ongoing
	#15 Continue neighborhood watch/crime prevention	Ongoing
Assist in Low/Moderate Income Housing Development	#16 Continued participation in County Mortgage Revenue Bond Program.	Ongoing; 322 units developed/improved. Development of 200 more units anticipated by 1994.
	#17 Reduction of processing and review time.	Ongoing; 6 to 8 weeks fast-track processing time.
	#18 Develop a Section 202 senior project.	65 unit senior citizen project completed.
	#19 Modify development standards for low and moderate income housing.	Ongoing
	#20 Land acquisition for affordable housing.	Ongoing; 3 acres acquired. 2 more acres proposed for acquisition by 1994.

CHART A-1 CONTINUED
GARDEN GROVE HOUSING ELEMENT
PROGRESS IN IMPLEMENTATION — 1989-1993

Program Category	Planned Action	Level of Achievement
Provision of Adequate Housing Sites	#21 Conduct site inventory.	Completed. Potential site availability for 3,044 residential units, which exceeds the regional need of 2,905 units as identified by SCAG.
	#22 Identify residential sites within redevelopment areas.	77.9 acres zoned for medium to high density could accommodate 1,875 dwelling units.
	#23 Identify underdeveloped sites.	Ongoing
	#34 Zone land for emergency shelters.	Ongoing; 30.5 acres of residentially zoned land suitable for shelter facilities.
	#25 Acquire and rehabilitate sites for shelter facilities.	Ongoing; 8 units completed. 8 more units anticipated by 1994.
Removal of Governmental Constraints	#26 Provide zoning/general plan consistency.	Completed. Inconsistencies eliminated.
Promote Equal Housing Opportunity	#27 Support County Fair Housing Program.	Ongoing
	#28 Identification of special housing needs.	Ongoing
	#29 Continue Displacement Program.	Ongoing

7. Garden Grove has pursued proactive Building and Zoning Code enforcement programs to maintain public health and safety. The City has developed a property maintenance ordinance with standards of home maintenance practices to improve neighborhood appearance.
8. The City has administered several ongoing programs to prevent the blight of residential neighborhoods. These include neighborhood clean-ups, neighborhood improvement committees, Neighborhood Watch, graffiti abatement, and Garden Grove Pride awards. The City has hired a public relations staff person to promote neighborhood improvement efforts. As part of its CDBG program, the City implements ongoing infrastructure improvement projects in blighted neighborhoods.
9. To assist in the development of low and moderate income housing, the City has participated in the County Mortgage Revenue Bond program. This program has been utilized to provide affordable housing for seniors and for families. Over the past three years, 322 units have been developed in two projects.
10. To reduce the cost of housing development, the City established a fast-track processing schedule with priority to projects that provide housing opportunities. The one-stop public counter enables most projects to be processed in six to eight weeks. The City has and will continue to modify development standards, such as parking requirements, for moderate and low income housing projects. The Planned Unit Development(PUD) process has also been utilized to modify development standards.
11. Section 202 funds were utilized to develop a 65 unit senior citizen project adjacent to City Hall. The City assisted in the acquisition of land for the project, which was built by a private developer.
12. The City has acquired or is in the the process of acquiring approximately five acres of vacant land from right-of-way activity and water well sites for the development of affordable housing. These sites can accommodate up to 85 housing units. Funding for this ongoing program is provided by the City Agency for Community Development and HOME Investment Partnerships program.
13. An inventory of potential housing sites was conducted. The inventory considered both vacant and underdeveloped land within and outside the City's redevelopment areas. There are over 135 acres available with the potential to accomodate 3,044 units. The Community Center Specific Plan and the Harbor Corridor Specific Plan provide low/moderate income housing opportunities. The City has identified underdeveloped properties zoned for medium density and encourages owners to recycle the sites to medium density uses.

14. The City has identified 30.5 acres of residentially zoned land that are suitable for the development of emergency or transitional shelter facilities. City staff provide volunteer time to assist 20 organizations that provide services for the homeless. During the past three years, the City has acquired and rehabilitated sites to serve the homeless. An eight unit apartment building was transformed into a homeless shelter through a partnership between the City, a non-profit corporation, and the Building Industry Association. Another building has been leased to Turning Point, a local non-profit agency, at a subsidized rate to serve the needs of runaway teenagers. These projects were funded by HOME and set-aside funds.
15. During this planning period, the City eliminated inconsistencies between the General Plan and zoning. Lack of consistency could have constrained the future development of housing, particularly opportunities associated with redevelopment activities.
16. To provide equal housing opportunities for all segments of the population, the City has supported the Orange County Fair Housing Council. CBDG and Housing Authority funds are used to assist residents displaced from substandard structures as a result of code enforcement. The Community Development Department studies special housing needs of the community in order to remove barriers for residents with special housing needs. These groups include seniors, the disabled, and large families.

Appropriateness

As housing affordability is a key concern in Garden Grove, it is appropriate to continue the various programs oriented toward conserving the existing supply of affordable housing. To halt the spread of blight in older residential neighborhoods, it is important to continue programs that emphasize community pride and neighborhood improvement. Code enforcement, graffiti removal, and crime prevention programs contribute to the enhancement of lower income residential neighborhoods. Continued participation in the County Mortgage Revenue Bond program will provide additional affordable housing opportunities. Continuation of the fast-track processing schedule and the modification of development standards for affordable housing will help to reduce overall housing costs.

POPULATION, EMPLOYMENT AND PROJECTED NEED FACTORS

Population and Employment Trends

Population Trends

In 1950, the City's population was a modest 4,000 persons. During the past four decades, Garden Grove's population has increased by 144,065 persons. Most of the City's population growth occurred during the 1950s decade. The community's population trends are summarized below in Table A-2.

**TABLE A-2
CITY OF GARDEN GROVE
HISTORIC AND CURRENT POPULATION — 1970 TO 1992**

<u>Year</u>	<u>Population</u>	<u>Incremental Increase</u>	<u>Cumulative Increase</u>
1950	4,000	-----	-----
1960	84,238	80,238	80,238
1970	123,230	38,992	119,230
1980	123,307	77	119,307
1990	143,050	19,743	139,050
1992	148,065	5,015	144,065

Source: City of Garden Grove, Housing Element of the General Plan, December 1989.

State of California, State Census Data Center, 1990 Census of Population and Housing, Summary Tape File 1.

State of California, State Department of Finance (DOF), January 1992.

Table construction by Castañeda & Associates.

Employment Trends

As of 1990, the City's employment base was estimated at 47,691 jobs. The historic employment levels are summarized below:

<u>Year</u>	<u>Employment</u>
1970	20,002
1980	35,140
1985	40,516
1990	47,691

Therefore, the City's jobs base has increased 2 1/2 times during the past two decades.

Table A-3 below indicates that there are 71,668 employed residents. More than one half, (53.6%) of the jobs are existing in two employment sectors, manufacturing and services. The employment trend data do not account for jobs losses that have affected the Southern California and Garden Grove economies since 1990.

**TABLE A-3
CITY OF GARDEN GROVE
EMPLOYED RESIDENTS BY INDUSTRY — 1990**

<u>Industry</u>	<u>Employed Residents</u>	<u>Percentage Distribution</u>
Agriculture	1,191	1.7%
Mining	106	0.2%
Construction	5,072	7.1%
Manufacturing	18,134	25.3%
Transportation	2,956	4.1%
Communications & Public Utilities	1,500	2.1%
Wholesale Trade	3,445	4.8%
Retail Trade	11,951	16.7%
Finance, Insurance, and Real Estate	5,032	7.0%
Services	20,326	28.3%
Government	1,955	2.7%
	71,668	100.0%

Source: State of California, State Census Data Center, 1990 Census of Population and Housing, Summary Tape File 3.

Table construction by Castañeda & Associates.

Population and Employment Projections

Population Projections

One method of projecting Garden Grove's future population at build-out is based upon the housing unit potential, average household size and vacancy factor assumption. At build-out, the City's population is projected to reach 155,773 persons based on the following assumptions:

- | | | |
|----|--------------------------|-------------------------------|
| 1. | Current housing supply = | 46,415 dus |
| 2. | Housing unit potential = | 3,048 dus |
| 3. | Vacancy factor = | 3.1% vacancy* |
| 4. | Average household size = | 3.25 persons per occupied du* |

$$46,415 \text{ dus} + 3,048 \text{ dus} = 49,463 \text{ dus} \times .969\% = 47,930 \times 3.25 = 155,773.$$

* Per State Department of Finance (DOF), January 1, 1992.

The Orange County Administrative Office periodically performs projections with respect to population, employment and housing. The most current projects were conducted in June 1992 and were presented to the County Board of Supervisors at their June 23, 1992 meeting.

During the projection period (base year 1990 to horizon year 2020) Orange County's population will increase by 34%, adding more than 800,000 persons to the population; while the rate of migration will remain high during the first few years of the projections, it will gradually decline out to the year 2020. With respect to Garden Grove, the population is projected to increase by 23,703 (16.6%) persons over the time period. A complete breakdown is provided in Table A-4.

**TABLE A-4
CITY OF GARDEN GROVE
POPULATION PROJECTIONS — 1990 TO 2020**

Year	Total Population	Incremental Increase	Percent Increase
1990	143,050	-----	-----
1995	148,882	5,832	4.1%
2000	156,753	7,871	5.3%
2005	159,473	2,720	1.7%
2010	162,048	2,575	1.6%
2015	163,394	1,346	0.8%
2020	166,753	3,359	2.1%

Source: Orange County Administrative Office (CAO), Orange County Projections, 1992, June 1992.

Table construction by Castañeda & Associates.

Employment Projections

Due to changing economic conditions, the County Administrative Office indicated that employment was more difficult to project than population. However, employment is expected to grow by 797,000 jobs to a county-wide total of 2,098,000 by the year 2020. According to the CAO report, job growth through the year 2000 will proceed at a faster rate than the United States, California or the Los Angeles basin, after which the rate will be consistent with the national rate.

The City is located in Regional Statistical Area 37. With respect to RSA37, the favorable tourist-commercial base will continue, according to the CAO report. In addition, there will be continued industrial and commercial growth in the Anaheim area. Furthermore, as stated in the CAO report, employment will continue to be concentrated in existing employment areas, including the Central Business Districts of Anaheim and Garden Grove, and in the vicinity of Disneyland and the surrounding commercial/recreational area.

Garden Grove's employment base is projected to increase by 3,197 jobs over the 30-year projection period. A complete summary is provided below in Table A-5.

**TABLE A-5
CITY OF GARDEN GROVE
JOB PROJECTIONS — 1990 - 2020**

Year	Total Employment	Annual Increase	Percent Increase
1990	47,691	-----	-----
1995	48,068	377	0.8%
2000	48,608	540	1.1%
2005	49,159	551	1.1%
2010	49,711	552	1.1%
2015	50,299	588	1.2%
2020	50,888	589	1.2%

Source: Orange County Administrative Office (CAO), Orange County Projections, 1992, June 1992.

Table construction by Castañeda & Associates.

Projected Needs and Share of Regional Housing Need

Article 10.6 Requirements

Section 65584 (a), of the Government Code requires that SCAG determine each city's share of regional housing needs. According to the State housing element legislation, "... a locality's share of the regional housing needs includes that share of the housing needs of persons at all income levels within the area significantly affected by a jurisdiction's general plan." (Section 65584 [a]). In addition, according to that same section, "Each locality's share shall be determined by the appropriate councils of government consistent with the criteria" set forth by the State Department of Housing and Community Development (HCD).

The share of regional housing needs must take into consideration eight factors:

1. Market demand for housing
2. Employment opportunities
3. Availability of suitable sites
4. Availability of public facilities
5. Commuting patterns
6. Type and tenure of housing needs
7. Housing needs of farm workers
8. Loss of units contained in assisted housing projects

These factors are considered in the Regional Housing Needs Assessment (RHNA). The RHNA, which is being updated in 1993, must promote:

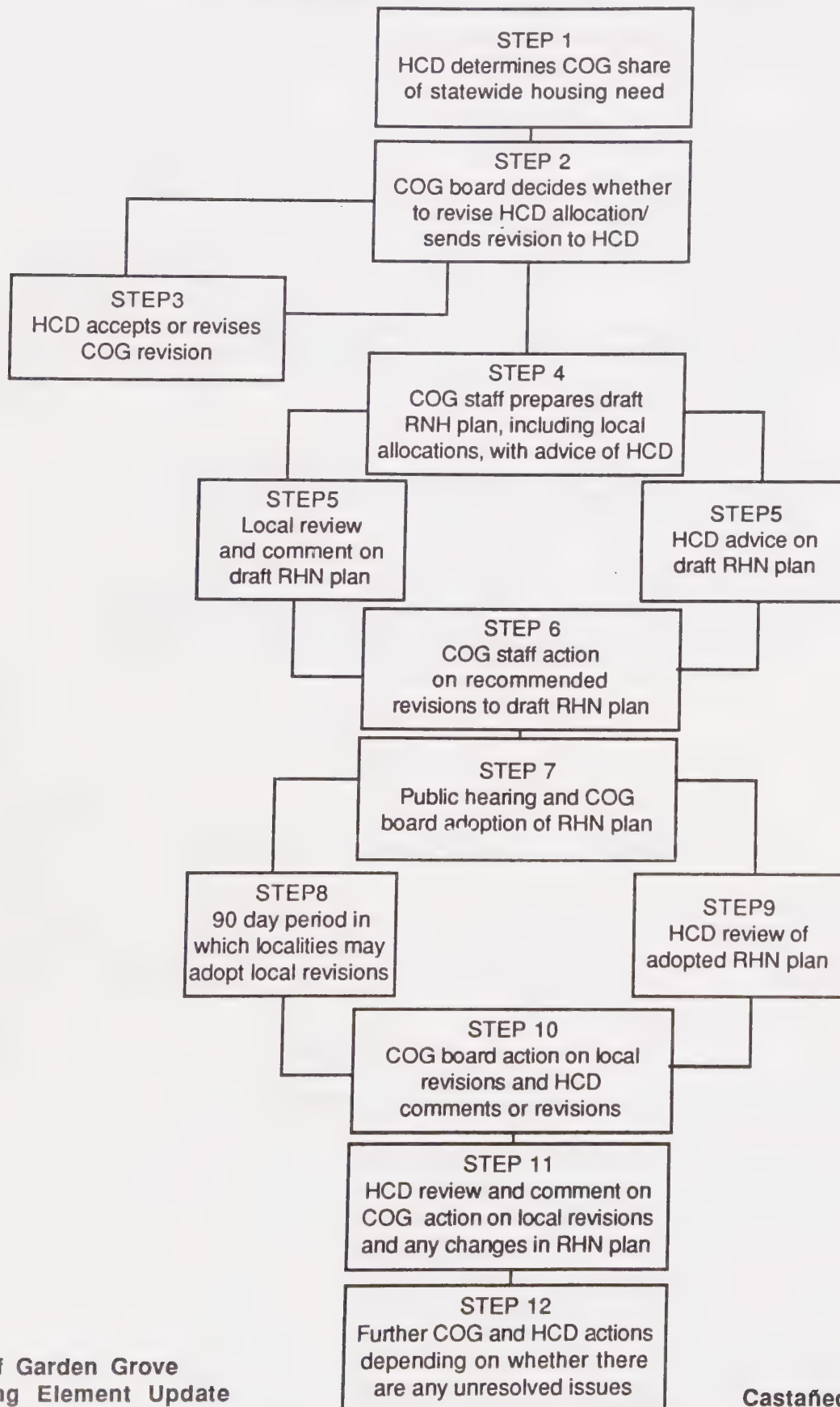
1. Efficient commuting patterns
2. Provision of housing close to employment opportunities; or public transportation facilities
3. Reduce the concentration of lower income households in cities that have a disproportionately high proportion of such households

Chart A-2, on the following page, describes the process for determining a locality's share of regional housing needs. As of January 1993, SCAG is involved in completing Step 4. The "allocation of need" or new RHNA is expected to occur by mid-year 1993.

Regional housing need is the sum of: 1) forecast increases in new households between 1992 and 1999; 2) estimates of new units required to ensure a vacancy rate which reflects a healthy housing market; and 3) replacement allowances which account for units that are lost through natural occurrences or other reasons. These factors are explained below:

1. The first component pertains to the increase of households. This refers to number of individual housing units needed to accommodate a population increase due to natural increase, net migration and household formation.
2. A second component of regional housing need is an estimate of new units required to insure a vacancy rate reflecting a healthy housing market. HCD believes an optimum rate is reached when a 6% renter and 2% owner vacancy rate is reached.
3. The third component of need is a replacement estimate for residential units expected to be removed from the housing stock. This includes units demolished, converted to non- residential use or lost for other reasons.

REGIONAL HOUSING NEEDS PLAN PROCEDURES FLOW CHART



Garden Grove's Share of Regional Housing Need

According to the Southern California Association of Governments, as per the 1989 Housing Element, the City's "share of regional housing need" was 2,905 housing units during the 5-year period from 1989 to 1994. The breakdown by income group is shown in Table A-6.

TABLE A-6
CITY OF GARDEN GROVE
SHARE OF REGIONAL HOUSING NEED — 1989 TO 1994

<u>Income Group</u>	<u>Housing Need</u>	<u>Percentage Distribution</u>
Very Low	494	17.0%
Low	674	23.2%
Moderate	699	24.1%
Above Moderate	<u>1,038</u>	<u>35.7%</u>
	2,905	100 %

Source: Southern California Association of Governments, Regional Housing Needs Assessment, December 1988.

Table construction by Castañeda & Associates.

SCAG has yet to publish the new Regional Housing Needs Assessment for the 1994-1999 time period. A draft RHNA may be available in March 1993.

In order to provide a provisional projection of the City's "regional share", a review was made of the information published to date by SCAG. From this review it appears that SCAG will use a "same share" methodology to allocate "regional need" to each jurisdiction. The State HCD has provided SCAG with a determination of the region's share of the Statewide need and each of the six counties share of the total need allocated to Southern California. Thus, a need projection for Orange County has been projected. The "same share" methodology means that the City's percentage of all households in 1992 will be applied to the 1999 countywide household projection.

As of January 1992, Garden Grove consisted of approximately 5.3% of all of Orange County's households as shown below:

- ✓ Garden Grove total households — 44,971
 - ✓ Orange County total households — 847,905
- $*44,971/847,905 = .0530$

Applying the above factor to the 1999 household projection of 991,600, Garden Grove will have approximately 52,554 (.053 x 991,600) households by July 1999. This translates to an increase of 7,583 households over the 7.5 year period from January 1992 to July 1999. An increase 7,583 households over the 7.5-year time period (1992-1999) results in 1,011 households per year. For the current five year planning period (1994-1999), approximately 5,055 households will be added to Garden Grove. According to SCAG, the percentage breakdown by income group is: 19% very low; 15% low; 24% moderate; and 42% above moderate.

To the increase of households, allowances would need to be made for both vacancies and losses from the inventory. When these factors are considered, the total 5-year housing need is projected to be 6,000 housing units. The projections are summarized below in Table A-7.

TABLE A-7
CITY OF GARDEN GROVE
SHARE OF REGIONAL HOUSING NEEDS — 1994-1999

Income Group	Number of Households	Percentage Distribution
Very Low	960	19%
Low	758	15%
Moderate	1,213	24%
Above Moderate	2,124	42%
	5,055	100%

Source: State Department of Housing and Community Development, HCD Determinations of Existing and Projected Housing Needs for the SCAG Region, June 1992.

Vacancy allowances were based on HCD's criteria of 6% for rental- and 2% for owner-housing. The replacement need to account for losses from the inventory was based on the number (267) applied for the 1989-94 time period.

Table construction by Castañeda & Associates.

The employment and housing projections developed by the County Administrative Office would not seem to justify a need figure as high as SCAG *may* project. For example, the jobs in the City are projected to increase by only 3,200.

During the projection period, the County is to add some 278,000 housing units to its 1990 stock of 875,000 units. The City is located in RSA 37; according to the CAO report, this area has the following characteristics:

- √ Little land remains for first generation development.
- √ There will be steady levels of redevelopment in the older areas.
- √ With the exception of minor infill activity, first generation residential build-out has occurred.

With the above statements in mind, the City's housing stock was projected to increase by 3,643 units for a 7.9% increase over the period. A summary is provided below in Table A-8. This projection is more consistent with the City's land availability.

**TABLE A-8
CITY OF GARDEN GROVE
HOUSING UNIT PROJECTIONS — 1990 - 2020**

Year	Total Housing	Incremental Increase	Percent Increase
1990	45,984	-----	-----
1995	46,396	412	0.9%
2000	46,942	546	1.2%
2005	47,523	581	1.2%
2010	48,090	567	1.2%
2015	48,864	774	1.6%
2020	49,627	763	1.6%

Source: Orange County Administrative Office (CAO), Orange County Projections, 1992, June 1992.

Table construction by Castañeda & Associates.

In order to provide a more realistic appraisal of housing need, a projection was based on land availability in the City. The income distributions suggested by SCAG for all cities located in Orange County were used to construct Table A-9 below.

**TABLE A-9
CITY OF GARDEN GROVE
PROJECTED HOUSING NEEDS BASED ON
RESIDENTIAL LAND AVAILABILITY**

Income Group	Number of Households	Percentage Distribution
Very Low	579	19%
Low	457	15%
Moderate	732	24%
Above Moderate	1,280	42%
Total:	3,048	100 %

Source: Table construction by Castañeda & Associates.

Income Limits

The U.S. Department of Housing and Urban Development (HUD) estimates "area median family income". A set of factors is used to calculate income limits by "family" size. In HUD regulations, family has the same meaning as household. These income limits are used to categorize households by income. The same circumstances apply to the moderate income level: HCD multiplies HUD's area median family income by a set of factors to determine a set of moderate income limits by household size. The 1992 Orange County median income was \$52,700 for a family of four persons. Income limits pertinent to Garden Grove based on this median income are listed below based on a 4-person household:

Income Group	Percent of Regional Median Income	Income Limits
Very Low	< 50%	\$0 - \$26,350
Low	51% - 80%	\$26,351 - \$42,160
Moderate	81% - 120%	\$42,161 - \$63,240
Above Moderate	121% +	\$63,241+

HOUSEHOLD AND HOUSING CHARACTERISTICS

Section 65583 (a)(2) of the Government Code requires that a housing element include an analysis of:

- √ Level of payment compared to ability-to-pay;
- √ General housing characteristics;
- √ Overcrowding;
- √ Housing stock condition.

Level of Payment Compared to Ability-to-Pay

State law requires that the Housing Element include an analysis of housing costs compared to ability to pay. "Overpaying" or "cost burden" households are those in the very low and low income groups that spend more than 30% of their income on housing. Usually, the overpaying rates vary greatly by income and tenure.

Data from the 1990 Census are available in Table A-10 on household income by tenure. While more than 50% of owner households had incomes above \$50,000, only 18.5% of the renter households did so. By comparison, 11% of owners had incomes of less than \$20,000 while 33% of the renters were in this income bracket. Overpaying rates were calculated for each income level and are reported in Table A-11. As noted, overpaying rates are very high for all owners and renters with incomes of \$10,000 or less and renters with incomes between \$10,000 and \$19,999.

**TABLE A-10
CITY OF GARDEN GROVE
HOUSEHOLD INCOME BY TENURE — 1990**

Income Level	Owner	%	Renter	%	Total
< \$10,000	1,035	3.9%	2,465	13.7%	3,500
\$10,000 - \$19,999	1,885	7.1%	3,490	19.4%	5,375
\$20,000 - \$34,999	4,459	16.8%	5,343	29.7%	9,802
\$35,000 - \$49,999	5,707	21.5%	3,365	18.7%	9,072
\$50,000 +	13,460	50.7%	3,329	18.5%	16,789
Total:	26,546	100.0%	17,992	100.0%	44,583

Source: State of California, State Census Data Center, 1990 Census of Population and Housing, Summary Tape File 3. Tables H50 and H59.

Table construction by Castañeda & Associates.

**TABLE A-11
CITY OF GARDEN GROVE
PERCENT OF OWNER/RENTER HOUSEHOLDS OVERPAYING*
BY INCOME LEVEL — 1990**

Income Level	Owner Households	Renter Households
< \$10,000	70.3%	94.0%
\$10,000 - \$19,999	41.5%	96.5%
\$20,000 - \$34,999	39.3%	63.5%
\$35,000 - \$49,999	39.7%	19.9%
\$50,000 +	15.8%	3.6%
All Households:	28.8%	54.8%

Source: State of California, State Census Data Center, 1990 Census of Population and Housing, Summary Tape File 3. Tables H50 and H59.

Table construction by Castañeda & Associates.

* Households paying more than 30% as a percentage of all households in a particular income level.

The percentages in Table A-11 then were applied to the total households for each income level and tenure. As noted in Table A-12, an estimated 17,522 owner and renter households were paying more than 30% of their income on housing costs at the time of the 1990 Census. The largest number of "cost burden" households were the renters in the three income levels under \$34,999.

**TABLE A-12
CITY OF GARDEN GROVE
HOUSEHOLDS OVERPAYING FOR HOUSING BY
HOUSEHOLD INCOME AND TENURE — 1990**

Income Level	# of Owner Households	%	# of Renter Households	%	Total
< \$10,000	728	9.5%	2,318	23.5%	3,046
\$10,000 - \$19,999	783	10.2%	3,366	34.1%	4,149
\$20,000 - \$34,999	1,750	22.9%	3,394	34.4%	5,144
\$35,000 - \$49,999	2,268	29.6%	668	6.8%	2,936
\$50,000 +	2,126	27.8%	121	1.2%	2,247
Total:	7,655	100.0%	9,867	100.0%	17,522

Source: State of California, State Census Data Center, 1990 Census of Population, Summary Tape File, Tables H-50 and H-59.

Table construction by Castañeda & Associates.

The estimates were then aggregated into four income groups: very low; low; moderate; and above moderate. The income thresholds for each group are defined per the 1990 countywide median income of \$45,992 and are presented in Table A-13.

**TABLE A-13
CITY OF GARDEN GROVE
INCOME THRESHOLDS — 1990**

Income Group	Household Income	Percent of County Median
Very Low	< \$22,961	< 50%
Low	\$22,962 to \$36,738	50% to 80%
Moderate	\$36,739 to \$55,106	81% to 120%
Above Moderate	\$55,107 +	121% +

Note: Income thresholds based on the median household income for Orange County, \$45,922, as reported in Table P80 of the 1990 Census of Population and Housing Summary, Tape File 3.

Source: Table construction by Castañeda & Associates.

As shown on Table A-14, there were 12,679 households very low and low income households paying more than 30% of their income on housing costs. Of this total, 3,524 were owners and 9,155 were renters.

**TABLE A-14
CITY OF GARDEN GROVE
HOUSEHOLDS OVERPAYING FOR HOUSING BY
TENURE AND INCOME GROUP — 1990**

Income Group	# of Owner Households	%	# of Renter Households	%	Total
Very Low	1,856	24.3%	6,354	64.4%	8,210
Low	1,668	21.8%	2,801	28.4%	4,469
Moderate	2,390	31.2%	613	6.2%	3,003
Above Moderate	1,741	22.7%	99	1.0%	1,840
Total:	7,655	100.0%	9,867	100.0%	17,522

Note: This table is based upon the information reported in the 1990 Census and a distribution of that information based upon the income threshold levels. All interpolations performed by Castañeda & Associates. The data were grouped by the median income above and do not account for household size.

Source: State of California, State Census Data Center, 1990 Census of Population, Summary Tape File, Tables H-50 and H-59.

Table construction by Castañeda & Associates.

General Housing Characteristics

Housing Stock

As of January 1992, Garden Grove had a housing stock comprised of 46,415 dwelling units. More than one-half (55%) of the City's housing stock consists of single-family detached dwellings. A complete breakdown is listed in Table A-15.

**TABLE A-15
CITY OF GARDEN GROVE
HOUSING STOCK COMPOSITION — 1992**

Housing Type	Number of Housing Units	Percentage Distribution
Single Family		
Detached	25,543	55.0%
Attached	3,954	8.5%
Multi-Family		
2 to 4	3,457	7.5%
5 +	11,517	24.8%
Mobile Homes	1,944	4.2%
Total:	46,415	100.0%

Source: California State Department of Finance, April 29, 1992.

Table construction by Castañeda & Associates.

Table A-16 illustrates the change in tenure for occupied housing units from 1980 to 1990. In both 1980 and 1990, about 60% of the City's housing units were owner-occupied. Table A-17 shows the change in housing stock composition during the decade. These trend data indicate that about 1,000 single family homes were lost from the inventory during the decade. The transition of some single-family areas to multi-family development has and will occur in the future to respond housing demand.

**TABLE A-16
CITY OF GARDEN GROVE
CHANGE IN TENURE FOR OCCUPIED
HOUSING UNITS — 1980 VS. 1990**

Year	Owner	%	Renter	%	Total
1980	25,543	61.4%	16,047	38.6%	41,590
1990	26,546	59.6%	17,992	40.4%	44,538

Source: County of Orange, 1980 Census Report Volume 3B, Table 1, March 1982.

State of California, State Census Data Center, 1990 Census of Population and Housing, Summary Tape File 1.

Table construction by Castañeda & Associates.

**TABLE A-17
CITY OF GARDEN GROVE
CHANGE IN HOUSING STOCK COMPOSITION
1980 VS. 1990**

Housing Type	1980 # of Units	%	1990 # of Units	%
1 unit	30,565	71.4%	29,493	64.1%
2 - 9 units	5,406	12.6%	6,739	14.7%
10 units +	5,137	12.0%	7,206	15.7%
Mobilehomes	1,692	4.0%	1,944	4.2%
Other	N/A	N/A	602	1.3%
Total:	42,800	100.0%	45,984	100.0%
Persons per unit:	2.93		3.11	

Source: County of Orange, 1980 Census Report Volume 3B, Table 1, March 1982.

State of California, State Census Data Center, 1990 Census of Population and Housing, Summary Tape File 1.

Table construction by Castañeda & Associates.

Note: 1980 data did not have an "other" category.

In 1990, according to the Census, the vacancy rate was approximately 3.1%. As of January 1992, the California State Department of Finance has Garden Grove's vacancy rate at the same 3.1%. The majority of vacant units were available for rent. Table A-18 shows the characteristics of the City's vacant housing units per the 1990 Census.

**TABLE A-18
CITY OF GARDEN GROVE
OCCUPANCY STATUS OF HOUSING STOCK — 1990**

Occupied	44,538
Vacant	1,446
For Rent	813
For Sale Only	242
Rented/Sold, Not Occupied	166
For Migrant Workers	0
For Seasonal/Recreational or Occasional Use	57
Boarded Up	19
Other Vacant	149

Source: State of California, State Census Data Center, 1990 Census of Population and Housing, Summary Tape File 1.

Table construction by Castañeda & Associates.

Owner/Renter Distribution

As of the April 1990 Census, there were an estimated 44,538 households (occupied housing units) residing in Garden Grove. Of the occupied housing stock, 59.6% was owner- and 40.4% was renter-occupied. Most renters live in multi-family structures; however, about 16.9% of the City's occupied single-family structures are renter-occupied. The detail data are presented in Table A-19 below.

**TABLE A-19
CITY OF GARDEN GROVE
TENURE BY UNITS IN STRUCTURE — 1990**

Units in Structure	Owner Occupied	%	Renter Occupied	%	Vacant Units	Total Units
1, Detached	20,840	83.1%	4,241	16.9%	458	25,539
1, Attached	2,825	73.4%	1,023	26.6%	106	3,954
2	50	11.7%	376	88.3%	12	438
3 or 4	163	5.7%	2,693	94.3%	125	2,981
5 to 9	292	9.4%	2,829	90.6%	199	3,320
10 to 19	241	10.6%	2,025	89.4%	102	2,368
20 to 49	136	5.2%	2,492	94.8%	223	2,851
50 or more	52	2.8%	1,829	97.2%	106	1,987
Mobilehome	1,696	91.3%	161	8.7%	87	1,944
Other	251	43.7%	323	56.3%	28	602
Total:	26,546	59.6%	17,992	40.4%	1,446	45,984

Source: State of California, State Census Data Center, 1990 Census of Population and Housing, Summary Tape File 1.

Table construction by Castañeda & Associates.

Overcrowding

Overcrowding most often reflects the financial inability of households to buy or rent housing units having enough space for their needs. Consequently, overcrowding is more appropriately considered a household characteristic (instead of a housing structural condition) and falls within the meaning of special housing needs much as large families are so considered. Overcrowding also may be a temporary phenomena since some households will move to larger housing units to meet space requirements.

Overcrowding is one result of the shortage of interior living space. The most often-used indicator of overcrowding relates to the number of rooms and persons in a housing unit. An "overcrowded" housing unit does not necessarily imply one of the inadequate physical condition; rather, with fewer persons it becomes "uncrowded".

Data from the 1990 Census indicates that Garden Grove had 8,193 overcrowded households which means that 18.4% all of occupied housing units (44,538) were overcrowded. The overcrowding rate was much higher among renter (31.8%) than owner households (9.3 %). The data are summarized by owner-renter in Table A-20.

**TABLE A-20
CITY OF GARDEN GROVE
OVERCROWDED HOUSEHOLDS BY TENURE — 1990**

Household Size	Owner Occupied	Renter Occupied	Total Households
1.01 to 1.50	1,330	1,992	3,322
1.51 to 2.00	780	1,803	2,583
2.01 or more	369	1,919	2,288
Total:	2,479	5,714	8,193

Source: State of California, State Census Data Center, 1990 Census of Population and Housing, Summary Tape File 1.

Table construction by Castañeda & Associates.

In 1980, there were a total of 3,077 overcrowded housing units; 7.2% of the occupied housing stock was overcrowded. Therefore, the percentage of overcrowded housing units has more than doubled during the past decade.

The City's 1989 Housing Element states that, while overcrowding is not a major citywide problem, there are specific areas in which overcrowding is concentrated. For owner occupied units the overcrowding is concentrated in the eastern portion of the City. Since this section of the City contains an older stock of housing with smaller sized units, the homes are generally more affordable to first time and low income buyers. Some of the areas do have a higher percentage of ethnic families (Asians and Hispanics) who typically have larger families. The overcrowding in rental units appears to be concentrated in areas where multi-family structures are located. However, there are neighborhoods where the overcrowding is most prevalent among single family structures.

Housing Stock Condition

This section of Garden Grove's housing needs assessment describes the condition of the existing housing supply. There are differences between housing stock condition and housing improvement needs. The term "condition" refers to the physical quality of the housing stock; the quality of individual housing units or structures may be rated as either sound, deteriorating or dilapidated. Housing improvements, on the other hand, refer to the nature of the "remedial" actions necessary to correct defects in the housing condition such as demolition, minor repairs, major repairs and rehabilitation.

According to the City's Comprehensive Housing Affordability Strategy (CHAS):

Much of the City's housing was built during the 1950's when there was less plan review, fewer development standards and little land use planning. Although the majority of these housing units are considered to be in standard condition by SCAG, a windshield survey of neighborhood conditions in Garden Grove conducted by a private consultant as part of a special study on housing conditions in 1975, indicated that as much as 20 percent of the City's total housing stock may be in need of moderate rehabilitation or repair. Six percent of the housing stock (2,752 units) are considered substandard and 23 percent of these (633) or 1.3 percent is considered dilapidated and need of demolition.

Because so much of the present housing stock was built about the same time, the need to preserve the quality and soundness of units through rehabilitation efforts will become increasingly more important as the units age. If units are not maintained and rehabilitated, a large percentage of housing may enter the substandard classification at the same time in the future.

The age of a residential structure also is sometimes a useful indicator of actual or potential housing improvement needs. According to the 1990 Census, about 40% of the City's stock is 30 years or older. Table A-21 includes data on the age of the City's housing stock per the 1990 Census. About 55.3% of the occupied older stock of 50+ years is renter-occupied. About 12% of Garden Grove's housing stock was built during the decades of the 1980's. The median year in which structures were built was 1963 according to the 1990 Census. That is, the median age of the housing stock within Garden Grove was 27 years old in 1990.

**TABLE A-21
CITY OF GARDEN GROVE
YEAR STRUCTURE BUILT BY TENURE — 1990**

Year Built	Owner	Renter	Vacant	Total	Percent Distribution
1989- March 1990	221	300	66	587	1.3%
1985-1988	1,056	989	112	2,157	4.7%
1980-1984	1,290	1,335	80	2,705	5.9%
1970-1979	2,872	4,702	268	7,842	17.1%
1960-1969	7,984	5,460	375	13,819	30.1%
1950-1959	12,145	4,227	475	16,847	36.6%
1940-1949	712	618	44	1,347	2.9%
Before 1940	266	361	26	653	1.4%
Total:	26,546	17,992	1,446	45,984	100.0%

Source: State of California, State Census Data Center, 1990 Census of Population and Housing, Summary Tape File 3, Tables H25/26/27.

Table construction by Castañeda & Associates.

SITE AVAILABILITY

Section 65583 (a)(3) of the Government Code requires that the Housing Element must include a site availability analysis with respect to:

- ✓ An inventory of land suitable for residential development, including vacant sites and sites having potential for redevelopment.
- ✓ An analysis of zoning in relationship to those sites.
- ✓ Adequacy of public services and facilities to the sites.

Land Suitable for Residential Development

Vacant Land Site Availability

State law requires an inventory of land suitable for residential development. The main requirement is that there is sufficient land to accommodate the City's share of regional need. According to a recently completed vacant land survey, there are 49.72 acres of vacant residential land and 86.1 acres of underutilized residential land. Therefore, there is a potential for an additional 3,048 units to be added to Garden Grove's housing stock without necessitating a zone change. A summary of the vacant residential land is as follows:

<u>Zoning Designation</u>	<u>Acres</u>	<u>Percent</u>
Low Density Residential	15.45	31.1%
Medium Density Residential (1)	34.27	68.9%
High Density Residential	0	0.0%
	49.72	100.0 %

(1) 25.2 acres are located within the redevelopment area.

Source: City of Garden Grove, Housing Element, December 4, 1989.

The total housing unit potential for vacant residential land is summarized below:

<u>Zoning Designation</u>	<u>Acres</u>	<u>Density Range</u>	<u>DU Capacity</u>
Low Density Residential	15.45	10 dus/ac	154
Medium Density Residential	34.27	24 dus/ac	822
High Density Residential	<u>0</u>	<u>36 dus/ac</u>	<u>0</u>
			976

A detailed inventory of sites is presented in Table A-22 on the following two pages. The summary information includes zoning, total acreage, average size in acres, and number of parcels. (The map numbers correspond to those referenced on the individual 81/2" by 11" maps included in the City's vacant land inventory.) Exhibit 4 shows the general location of the vacant sites.

Underdeveloped Sites

This sub-section presents summary data on potential for additional housing units in the City's underdeveloped areas.

<u>Zoning Category</u>	<u>Acres</u>	<u>Density</u>	<u>DU Capacity</u>
Low Density (1)	11.6	10	116
Medium Density (2)	60.5	24	1,452
High Density (3)	<u>14.0</u>	<u>36</u>	<u>504</u>
	86.1		2,072

- (1) *All acreage within a redevelopment area.*
- (2) *27.3 acres located within a redevelopment area.*
- (3) *All acreage located within a redevelopment area.*

Source: City of Garden Grove, Housing Element, December 4, 1989.

TABLE A-22
CITY OF GARDEN GROVE
SUMMARY OF VACANT LAND

Map Number	Total Acreage	Average Size (acres)	Average S.F.	Number of Parcels
R-1:				
8	1.07	.357	15,536	3
9	3.44	.86	37,462	4
10	.32	.16	6,970	2
11	1.05	.263	11,435	4
14	.35	.175	7,623	2
15	.48	.48	20,409	1
16	1.69	.211	9,202	8
19	.32	.32	13,939	1
20	.62	.31	13,504	2
21	1.68	.56	24,394	3
24	.36	.18	7,841	2
25	.49	.245	10,672	2
28	.15	.15	6,534	1
29	4.79	4.79	208,652	1
Total:	16.81	.467	20,340	36
R-2:				
16	.86	.43	18,731	2
R-3:				
8	3.0	.429	18,669	7
9	1.49	.745	32,452	2
11	.26	.26	11,326	1
13	1.19	1.19	51,836	1
15	.14	.14	6,098	1
25	.35	.35	15,246	1
26	.35	.35	15,246	1
Total:	6.78	.484	21,095	14

TABLE A-22 CONTINUED
CITY OF GARDEN GROVE
SUMMARY OF VACANT LAND

Map Number	Total Acreage	Average Size (acres)	Average S.F.	Number of Parcels
CCSP-PR:				
15	7.20	3.6	156,816	2
16	.82	.41	17,860	2
20	.53	.53	23,087	1
21	.15	.15	6,534	1
Total:	8.7	1.45	63,162	6
CCSP-MX:				
15	8.34	1.668	72,658	5
20	3.93	1.965	85,595	2
Total:	12.27	1.753	17,354	7
CCSP-CCR:				
15	3.45	.575	25,047	6
20	.29	.29	12,632	1
Total:	3.74	.534	23,273	7

Average Sizes of Vacant Parcels:

R1 — .467 ac; 20,340 S.F.

R-2 — .43 ac; 18,731 S.F.

R-3 — .484 ac; 21,095 S.F.

CCSP-PR — 1.45 ac; 63,162 S.F.

CCSP-MX — 1.753 ac; 17,354 S.F.

CCSP-CCR — .534; 23,273 S.F.

Source: City of Garden Grove, Vacant Land Survey, 1989.

Table construction by Castañeda & Associates.

New Construction Sites

Another component of site availability are new construction sites. Projects under construction are those that have been approved, and have actually started construction. Planned projects are projects which have been reviewed and approved by the City, but have not yet started construction. As of September 1, 1992, the larger projects (other than one, single family dwelling projects) are summarized below:

Projects Under Construction

None as of September 1, 1992.

Planned Projects

Case #	Location	Project	# of Units
SP-122-90	11712 Lampson	SFD	5
PUD-103-72	N. of Garden Grove Blvd., between Palm and Sungrove	Senior	165
SP-108-91	14062 Flower	Condo	6
SP-112-91	9792 Stanford	SFD	4
SP-114-91	10842 Acacia Pkwy.	Senior	45
SP-115-91(1)	12661 & 12681 Sunswept	Apartment	4
SP-116-91	12612 & 12622 7th St.	Condo	30
SP-101-92	12752 Lucille Ave.	Condo	5
PUD-101-92 (2)	12591 Westminster Ave.	Condo	26

Notes: (1) This project is proposed in conjunction with a community center.
(2) This project is a condominium conversion from apartments.

Source: City of Garden Grove, "Planned Projects" hand-out available at the public counter. Prepared by the City of Garden Grove Development Services Department, September 1, 1992.

An additional project is a 15 unit, 2 story condominium complex which had building permits issued in November. This project is located at 13442 Flower Street.

GOVERNMENTAL CONSTRAINTS

Section 65583 (a)(4) of the Government Code mandates an analysis of how governmental factors affect the maintenance, improvement and development of housing for all income groups. The relevant legislation cites the following potential or actual constraints:

- √ Land use controls (Land Use Element and Zoning);
- √ Building codes and their enforcement;
- √ Site improvements;
- √ Fees and other exactions; and
- √ Local processing and permit procedures.

These factors, which are under the influence or direct control of the City, affect two very important aspects of the housing market: 1) the range and diversity of housing types which can be built in the City; and 2) the cost of new housing production. The statewide legislation does not presume that Garden Grove, or any other city for that matter, regulates these factors in such a way as to restrict housing choices or raise housing costs above normal levels. However, if the analysis does reveal that unnecessary constraints are being imposed then it is expected that efforts will be made to mitigate the impacts.

Land Use Controls

Land Use Element

The Land Use Element and zoning ordinance provisions regulate the types, density and size of housing developed in a community. Garden Grove's Land Use Element designates three categories of residential land use, as follows:

<u>Land Use Category</u>	<u>Residential Density</u>
√ Low Density Residential (LDR)	up to 10 dus/ac
√ Medium Density Residential (MDR)	11-24 dus/ac
√ High Density Residential (HDR)	25-48 dus/ac

Zoning Classifications

The City has three (3) residential zoning classifications and three (3) specific plan designations. The three zoning classifications are R-1, R-2 and R-3, while the three specific plan areas are the Community Center Specific Plan (CCSP), the Harbor Corridor Specific Plan (HCSP) and the Brookhurst/Chapman Specific Plan (BCSP).

Traditionally Zoned

The three residential zoning classifications are defined as follows:

- √ R-1: (Single Family Residential), intended to provide for the establishment and promotion of single family detached residences on individual lots.
- √ R-2: (Limited Multiple Residential), intended to provide for a limited increase in population density by permitting multiple attached or detached dwellings on a lot.
- √ R-3: (Multiple Family Residential), intended to provide for a variety of types and densities of multiple family dwellings.

Development Standards:

Table A-23 outlines the development standards for the three traditionally zoned categories.

**TABLE A-23
CITY OF GARDEN GROVE
GENERAL RESIDENTIAL DEVELOPMENT STANDARDS**

Development Standard	R-1	R-2	R-3
Setbacks			
Front yard	15' - 20'	20'	20'
Side yard (interior)	5'	varies	varies
(street side)	10'	15'	15'
Rear Yard	20% of depth	varies	varies
Building Height			
Main structure	35'	35'	35'
Accessory structure	25'	25'	25'
Lot Coverage	50%	50%	50%
Minimum Lot Area	5,000 - 11,000 S.F.	7,200 S.F.	7,200 S.F.
Lot Widths			
(interior)	55' - 90'	60' - 65'	60' - 65'
(corner)	55' - 90'	65'	65'

Source: City of Garden Grove, Zoning Code.

Minimum Unit Sizes:

In addition to the above standards, a minimum floor area requirement must also be met. This is determined by the number of bedrooms as shown below:

Type of Unit	0 Bedrooms	1-Bedroom	2-Bedrooms	3 or More
Single Family	N/A	750 S.F.	900 S.F.	1,050 S.F.
Multi-Family (apartments)	500 S.F.	750 S.F.	900 S.F.	1,050 S.F.

Parking:

The following requirements for the traditionally zoned areas is as follows:

Single Family Dwelling: 4 spaces, with at least 2 spaces in an enclosed garage.

Multi-Family Dwellings: Developments noncontiguous to an arterial(s) or secondary arterial(s); 2 covered spaces per unit + .50 spaces per unit for guests.

Developments contiguous to an arterial(s) or secondary arterial(s); 2.75 spaces per unit.

For all units with three or more bedrooms, regardless of total number of units or street designation, an additional .25 space per unit is required.

Specific Plan AreasHarbor Corridor Specific Plan:

Within the HCSP area there are two residential overlay zones, the "Transitional North" (TN) zones and the "Transitional West" (TW) zone. The development standards for these areas are as follows:

Development Standard	Transitional North	Transitional West
Base District	R3 and OP	R3 and C-1
Minimum Lot Size	15,000 S.F.	50,000 S.F.
Minimum Width	150'	200'
Height	35'	45'
Landscaping Coverage	8%	10%
Parking	2.25 SP/unit	2.25 SP/unit
Front Setback	5'	10'
Side (adjacent to residence)	5'	10'
(not adjacent to residence)	10'	20'
Rear (adjacent to residence)	10'	10'
(not adjacent to residence)	45'	20'

Community Center Specific Plan:

The CCSP areas has two residential overlay zones, the R-3 multiple residential and the R-5 high rise-high density designation. The development standards for these overlay zones are listed in Table A-24.

In addition to the standards listed in Table A-24, the height and density requirements are as follows:

<u>Use District/ Overlay Zone</u>	<u>Height</u>	<u>Density</u>
MX	70'	36 du/ac
CR	60' Zone A 35' Zone B	.30 Zone A .50 Zone B
PR	35'	8 dus/ac (areas: 55,57,14) 23 dus/ac (areas: 3,11,12,13,15, 36,38,41,42,50,51,61) 36 dus/ac (area: 60)
CCR	50'	23 dus/ac (areas: 20,25,35) 36 dus/ac (areas: 22)

TABLE A-24
CITY OF GARDEN GROVE
CCSP DEVELOPMENT STANDARDS

Use District/ Zoning Overlay	Area Number	Lot Size	Frontage	Front Setback	Side Setback	Rear Setback
CR/R-5	31	35,000 sf	150'	20'	5'	5'
CCR/R-3 or R-5	20	20,000 sf	150'	15'	5'	5'
	22 —	As per SP A #121-83				
	25	35,000 sf	150'	15'	5'	5'
	35	25,000 sf	150'	20'	5'	5'
	46	8 acres	300'	20'	5'	5'
PR/R-3	3	17,000 sf	110'	15'	5'	5'
	11	30,000 sf	100'	15'	**	**
	12	30,000 sf	100'	15'	**	**
	13	17,000 sf	100'	15'	**	**
	14	20,000 sf	100'	15'	5'	5'
	15	60,000 sf	150'	15'	**	**
	27 —	Requires site plan review except for Greenbrier PUD				
	36	20,000 sf	150'	15'	5'	5'
	38	20,000 sf	150'	15'	5'	5'
	41	20,000 sf	150'	20'	5'	5'
	42	20,000 sf	150'	15'	5'	5'
	50	15,000 sf	100'	15'	5'	5'
	55	20,000 sf	150'	15'	5'	5'
	57	65,000 sf	400'	15'	5'	5'
MX/R-5	21	20,000 sf	50'	15'	5'	5'
	30	One parcel		10'	0'	0'
	32	65,000 sf		10'	0'	0'
		(except Historical Dist)				
	33	2 ac		10'	0'	0'
		(except Historical Dist)				

* Setback = height of building/tan X, where X = 34° on north side and 30° on west and east side.

Height requirements: CR — zone A — 60 feet; Zone B — 35 feet
 PR — 35 feet
 CCR — 50 feet

Source: City of Garden Grove, Article IX of the Municipal (Zoning) Code, Part 4, Community Center Specific Plan, June 10, 1985.

Area number refers to sub-areas within the Community Center Specific Plan.

Senior Housing Units

Senior housing units are permitted on R-1 single family residential lots subject to the approval of a Conditional Use Permit (CUP) and a site plan. The unit may be attached or detached from the existing dwelling provided it complies with all the development standards of the R-1 zone. If the unit is attached, it may not exceed 30% of the existing dwelling living area, of 640 feet if detached. The unit can be occupied by one or two persons, provided that one is at least 62 years of age. Other requirements include:

- √ It meets the requirements of the California Governmental Code.
- √ The site must have adequate vehicle capacity, access, circulation, parking and other similar infrastructure.
- √ The unit must be designed so that it is accessory and subordinate to the main building and consistent with the existing unit on the lot and the surrounding area.
- √ One enclosed parking space must be provided.

Building Codes and Their Enforcement

The City of Garden Grove uses the Uniform Building Code (UBC) as amended by City Ordinance Number 2242. Local agencies may adopt building code requirements more stringent than the UBC; however, it cannot adopt any below those of the UBC. Since the majority of cities use some form of the UBC, it allows developers to use the same code from city to city, thus reducing costs.

In a September 25, 1992 letter addressed to the State Department of Housing and Community Development, the City stated that the City Council had amended the 1991 Uniform Codes and the 1990 National Electrical Code to be more restrictive than those sections adopted by the State of California and contained in the State Building Standards Code. The City stated that the amendments were necessary due to local climatic, geographical and topographical conditions.

The City has made some non-administrative amendments which may have an affect on housing. These amendments are outlined below:

Section 505(e), 3802(a):

Description: These amendments require that an automatic sprinkler system be provided in new buildings or additions greater than 6,000 square feet.

Impact on Housing: This amendment has no impact on small residential projects. The impact on large residential complexes is significantly mitigated by lower insurance rates and the increase of allowable area which is permitted as a result of the inclusion of sprinklers. These increases often permit the building to be constructed of less expensive structural materials than would otherwise be required. The cost savings can be greater than the cost of the sprinkler installation.

Section 1101:

Description: This amendment changes the definition of an M-2 occupancy to include fences over 3'-6" high in-lieu of 6'-0" high as specified in the model code.

Impact on Housing: None

Section 1210:

Description: This amendment requires battery powered smoke detectors in existing hotel and motel rooms and in existing apartment units.

Impact on Housing: Because of low cost, the impact is negligible.

Section 1214:

Description: This section was deleted from the Code.

Impact on Housing: Since this section has already been superseded by the State of California disabled access regulations, there is no impact.

Section 1807:

Description: This section changes the height at which a "high rise package" would be required from 75'-0", as specified in the model code, to 55'-0".

Impact on Housing: For nearly all housing projects this amendment would have no impact. Garden Grove is a "bedroom" type of suburban community and there isn't any demand for high rise, high density residential construction.

Section 2903(a):

Description: This amendment prohibits the use of highly expansive fill dirt.

Impact on Housing: The natural soil in Garden Grove and the surrounding areas is not highly expansive. Fill dirt is readily available within a reasonable distance of construction projects within the City. Because of the availability of non-expansive fill dirt, this amendment will not have an impact on housing.

Section 2903(b):

Description: This amendment requires a chemical analysis for underground metallic piping used for multiple housing projects.

Impact on Housing: In the past, some underground metallic piping used in residential construction in the City of Garden Grove has deteriorated prematurely as a result of corrosive chemical reactions in the soil. This amendment has the effect of reducing the long-term cost of residential construction by ensuring that underground piping will not have to be replaced repeatedly.

Table 32A:

Description: This amendment requires Class C roofing (in lieu of non-rated) for R3 and M occupancies.

Impact on Housing: Because of the prevalence of fire resistive roofing products, there is a negligible price differential between non-rated roofing and Class C roofing. In many instances, non-rated roofs actually cost more than rated roofing products, for example: wood shingles vs. composition class C1 shingles. This amendment has either a negligible or beneficial effect on the cost of housing and reduces the potential for conflagration which can have significant negative impact on the local housing stock.

Appendix Chapter 35:

Description: This section has been deleted and replaced with the State of California noise control requirements.

Impact on Housing: None. The State regulations are mandatory anyway.

Miscellaneous Amendments:

Description: Amendments were made to require cloth covered structures and energy conservation to comply with Chapter 53 and 55 of the State of California Building Code, respectively.

Impact on Housing: None. Tents aren't generally used as permanent housing and the State regulations for energy conservation are mandatory anyway.

Required Off-Site and On-Site Improvements

Regulations and standards affecting residential site improvements are found mainly in the Subdivision Map Act. The City of Garden Grove implements the procedure pertaining to site improvements. The exaction of requirements over and above the State standards are contingent upon individual site conditions. No unusual or excessive site improvements are required by the City.

Developers of residential housing in this City are required to install arterial and local streets, curbs, gutters, sidewalks, sewers, street lighting, water distributing facilities and trees in the public right-of-way within and adjacent to the housing development. These facilities, for the most part, are dedicated to the City, which is responsible for maintenance. Some on-site improvements are required for planned residential developments and apartments. For example, private streets and landscaping within a planned development must meet standards set forth in the zoning ordinance. The City, however, will continue to evaluate the Municipal Code with respect to off-site and on-site improvements and whenever possible will provide opportunities for cost control while maintaining high development standards.

Processing Requirements

Before development can occur, it is necessary that certain permit, inspections and approvals are obtained. These procedures, although necessary to insure the development is safe and in compliance with local regulations, can sometimes lead to delays in projects and subsequently increase costs. This is especially true of projects that require discretionary action. Garden Grove implements a one stop counter to reduce processing time. Continued assessment of existing City policies, procedures and fees, and modifying those adding unnecessary delays or expense to projects will also assist in reducing housing costs. For example, a recent amendment to the Municipal Code will effectively reduce the processing time for a re-zone application by up to 21 days by granting the Planning Commission more powers to act on such applications.

Fees and Other Exactions

The City of Garden Grove collects a variety of fees associated with new residential construction. Each of the fees is outlined below.

Park and Recreation

- √ Single Family — \$1,200/unit
- √ Townhouse — \$1,200/unit
- √ Apartment — \$1,200/unit
- √ Mobilehomes — \$500/unit

Drainage

Depends on location within the City, but ranges from \$400 to \$1,400 per acre.

Building Permits

Assuming the construction of a 1,500 square foot house, the building permit fees would total \$1,609.13. This would include the following:

√	Building	\$847.33
√	Electrical	\$69.75
√	Plumbing	\$61.50
√	Mechanical	\$28.00
√	Water Meter	<u>\$602.55</u>
	Total:	\$1,609.13

Constraints Analysis

The average size of a vacant R-3 lot in the City of Garden Grove is approximately 21,095 square feet. According to the Zoning Code, this size lot would allow a maximum of eight dwelling units. Refer to Table A-24, for a complete breakdown of R-3 zone.

The typical vacant R-1 lot is approximately 20,000 square feet (20,340 S.F.). With minimum lot requirements ranging from 5,000 to 11,000 square feet, the number of units yielded from the typical vacant R-1 site ranges from 1.8 units to 4 units. Assuming a requirement of 6,000 square foot lots, the number of units allowed on a 20,000 square foot lot would be three units.

For single family residential units, there are minimum unit size requirements. One bedroom unit must be a minimum of 750 square feet, two bedroom units 900 square feet, and three or more bedroom units, 1,050 square feet. Since these requirements are not excessively restrictive, meeting these requirements would not prove difficult for the typical vacant R-1 lot in Garden Grove.

Regarding setbacks, assuming a 60' wide (55' minimum) by 100' deep lot, the building area for a single family residence would be 3,000 square feet. Therefore, it would be easily possible to have a 3,000 square foot building foot print and still meet all setbacks, lot coverage and minimum unit size requirements.

NON-GOVERNMENTAL CONSTRAINTS

Section 65583(a)(5) of the Government Code requires that a local housing element incorporate an analysis of potential and actual non-governmental constraints including:

- √ Availability of financing;
- √ Price of land; and
- √ Cost of construction.

Availability of Financing

According to the State Department of Housing and Community Development, the analysis of the availability of financing should consider whether financing is generally available, whether interest rates are significantly different from surrounding areas, and whether there are under-served areas or income groups in the community for new construction or rehabilitation loans. The HCD indicates knowledge of the “availability of financing” will assist the community to select and implement responsive housing programs such as mortgage revenue bonding, a mortgage credit certificate program, and targeted low-interest rehabilitation loans.

Geographic Lending Patterns

Community Reinvestment Act:

Through the CRA, banks are encouraged to implement the following actions:

- √ Participate in various government and privately insured loan programs.
- √ Develop and advertise services to benefit low- and moderate-income persons, such as, government check cashing and low-cost checking accounts.
- √ Target and implement marketing strategies to inform low- and moderate-income groups of loan and deposit services available to them.
- √ Contact local governmental leaders, economic development practitioners, businesses and business association and community organizations to discuss the financial services that are needed by the community.

- √ Participate and provide assistance to community development programs and projects.
- √ Invest in state and municipal bonds.

Through the CRA local officials can set up a successful dialogue with financial institutions, and evaluate the credit and depository needs of its citizens. Together with the Home Mortgage Disclosure Act, this information provides tools to help local governments and community organizations make sure that financial institutions invest in low- and moderate-income areas.

Home Mortgage Disclosure Act:

Since 1976, banks and other lending institutions with branch offices in metropolitan areas have been required, under the Home Mortgage Disclosure Act (HMDA), to disclose to the public, information about the geographic distribution of their loans for home purchases and home improvements. The data have raised questions about whether lenders have helped to meet the credit needs of the low-income and minority residents of their communities. The data in this sub-section presents a summary of nationwide and local patterns of lending based on HMDA information.

Nationwide Patterns: According to a November 1991 Federal Reserve Bulletin, the *denial rate* for conventional home purchase loans can be summarized as follows:

√	White_____14.4%	√	Hispanic____21.4%
√	Black_____33.9%	√	Asian_____12.9%

The HMDA data also indicated differences when home loan applicants are categorized by gender. For example, joint applicants (one male, one female) are more likely than either male or female applicants to have a conventional home purchase loan approved. On the other hand, female applicants are "somewhat" more likely than male applicants to have a home loan approved.

Differences were also evident in home improvement loans. The denial rates are higher for all groups, 36.9% of Black, 32.5% of Hispanic, and 24.6% of Asian applicants were denied loans, compared to 17% of all White applicants. Like the conventional home purchase loan, joint applicants were more likely to be approved than either male or female applicants; however, male applicants were more likely to receive approval of a home improvement loan than female applicants.

City Patterns: Tables A-25 and A-26 on the following pages list the number of loans originated, and the number of applications denied, by Census Tract, for 1990 and 1991. These tables illustrate the geographic distribution or availability of financing throughout the City. The HMDA data are made available for public review at a central depository for each County. The central depository for Orange County is located at the Anaheim Public Library. The data are referenced by Table 1, Disposition of Loan Applications, by location of property and type of loan. The numbers in Tables A-25 and A-26 reflect the disposition of home purchase loans made by all lending institutions for one to four family dwellings, and do not include refinance, subdivisions, non-occupant loans or loans on multi-family dwelling of five units or more. Additionally, the Census Tract boundaries are based on the 1980 Census. The data are not yet available per the 1990 Census Tract boundaries.

Note: According to the 1980 and 1990 Census, of the 45 census tracts within the City of Garden Grove at the time of the 1980 Census, 27 of the tracts share tract boundaries with other jurisdictions. Twelve of the tracts had a majority of the land area outside of Garden Grove while three of the tracts only had a very small portion within the City of Garden Grove. A cross reference for the 1980 and 1990 Census Tracts, as well as a list of the split tracts are shown in Chart A-3.

TABLE A-25
CITY OF GARDEN GROVE
GEOGRAPHIC DISTRIBUTION OF
LOANS BY CENSUS TRACT — 1990

CENSUS TRACT	LOANS ORIGINATED	PERCENT	APPL. DENIED	PERCENT	TOTAL APPL.
761.03	36	70.6	15	29.4	63
875.03	30	79	8	21	43
876.02	42	84	8	16	55
878.06	31	86.1	5	13.9	41
879.01	26	83.9	5	16.1	34
879.02	26	74.3	9	25.7	43
880.01	41	73.2	15	26.8	63
880.02	21	80.8	5	19.2	29
881.01	40	85.1	7	14.9	49
881.02	60	80	15	20	91
881.03	110	71	45	29	186
882.01	17	73.9	6	26.1	25
882.02	18	62.1	11	37.9	32
882.03	24	80	6	20	43
883.01	29	96.7	1	3.3	35
883.02	31	77.5	9	22.5	53
884.01	32	57.1	24	42.9	64
884.02	21	61.8	13	38.2	40
884.03	44	78.6	12	21.4	64
885.01	32	65.3	17	34.7	50
885.02	34	73.9	12	26.1	54
886.01	54	78.3	15	21.7	80
886.02	25	73.5	9	26.5	40
887.01	50	75.8	16	24.2	78
887.02	24	82.8	5	17.2	37
888.00	98	81	23	19	137
889.01	37	80.4	9	19.6	50
889.02	30	75	10	25	49
889.03	38	74.5	13	25.5	62
889.04	39	83	8	17	54
890.01	32	60.4	21	39.6	60
890.02	53	71.6	21	28.4	88
891.01	45	72.6	17	27.4	71
891.02	43	72.9	16	27.1	68
891.03	20	42.6	27	57.5	66
992.03	59	77.6	17	22.4	89
998.01	32	76.2	10	23.8	45
999.01	70	68.6	32	31.4	112
999.02	31	88.6	4	11.4	45
999.03	28	90.3	3	9.7	37
1100.01	66	79.5	17	20.5	97
1100.03	29	87.9	4	12.1	40
1100.04	55	82.1	12	17.9	76
1100.05	31	77.5	9	22.5	45
1100.10	46	80.7	9	19.3	58
TOTAL:	1,780	75.6	575	24.4	2,741

TABLE A-26
CITY OF GARDEN GROVE
GEOGRAPHIC DISTRIBUTION OF
LOANS BY CENSUS TRACT — 1991

CENSUS TRACT	LOANS ORIGINATED	PERCENT	APPL. DENIED	PERCENT	TOTAL APPL.
761.03	39	73.6	14	26.4	62
875.03	26	86.7	4	13.3	35
876.02	60	89.6	7	10.4	78
878.06	32	72.7	12	27.3	51
879.01	6	60	4	40	12
879.02	29	69.1	13	30.9	51
880.01	36	92.3	3	7.7	48
880.02	29	85.3	5	14.7	38
881.01	37	80.4	9	19.6	55
881.02	54	78.3	15	21.7	84
881.03	82	81.2	19	18.8	119
882.01	18	90	2	10	21
882.02	14	77.8	4	22.2	23
882.03	28	93.3	2	6.7	37
883.01	40	83.3	8	16.7	54
883.02	38	88.4	5	11.6	56
884.01	38	80.9	9	19.1	54
884.02	24	63.2	14	36.8	44
884.03	38	84.4	7	15.6	54
885.01	37	84.1	7	15.9	51
885.02	24	68.6	11	31.4	47
886.01	49	86	8	14	73
886.02	29	76.3	9	23.7	48
887.01	36	72	14	28	64
887.02	36	80	9	20	54
888.00	91	84.3	17	15.7	129
889.01	51	76.1	16	23.9	85
889.02	28	77.8	8	22.2	46
889.03	46	74.2	16	25.8	73
889.04	49	77.8	14	22.2	78
890.01	57	83.8	11	16.2	86
890.02	75	76	25	25	124
891.01	48	77.4	14	22.6	85
891.02	82	78.9	22	21.1	120
891.03	38	66.7	19	33.3	66
992.03	54	75	18	25	88
998.01	26	89.7	3	10.3	39
999.01	79	80.6	19	19.4	122
999.02	29	90.6	3	9.4	44
999.03	33	86.8	5	13.2	44
1100.01	47	85.5	8	14.5	65
1100.03	30	83.3	6	16.7	43
1100.04	53	91.4	3	8.6	62
1100.05	31	91.2	3	8.8	39
1100.10	48	88.9	6	11	68
TOTAL	1,617	91.2	450	21.8	2,819

The number of loans originated has decreased throughout the City. In 1990, for example, only 20 tracts experienced denial rates of 20% or higher. In 1991, however, that number increased to 30 tracts. Two thirds (66.7%) of all tracts within the City had denial rates at, or above, 20%. Refer to summary Tables A-27 and A-28 for data on percent of loans denied and approved.

Although the HMDA data does illustrate the geographic distribution of loans originated and denied, it does not take into account credit worthiness, employment history, collateral, etc., when compiling the data. Furthermore, during the past two years, home loan financing has been available throughout the City. At no time during the period has a tract not had loans originated.

During 1990, the census tract experiencing the lowest percentage (60.0%) of loans originated was Census Tract 879.01. As a result, this tract also experienced the highest rate of denial (40.0%). In 1991, Census Tract 891.03 had the lowest rate of loans originated (42.6%) as well as the highest denial rate (57.5%). This was the only instance of a denial rate higher than the approval rate. The current market conditions have made lending institutions more stringent on all loan applications.

TABLE A-27
CITY OF GARDEN GROVE
PERCENT OF LOANS DENIED — 1990 VS. 1991

Percent of Loans Denied	# of Census Tracts 1990	# of Census Tracts 1991
< 10%	5	2
10-14.9%	10	4
15-19.9%	10	9
20-24.9%	9	11
25-29.9%	6	12
30% +	5	7
Total:	45	45

Source: U.S. Department of Thrift Supervision. Home Mortgage Disclosure Act (HMDA) data obtained from the Orange County Central Depository at the Anaheim Public Library. Table 1: Disposition of Loan Applications, by Location of Property and Type of Loan, 1990 and 1991.

Table construction by Castañeda & Associates.

TABLE A-28
CITY OF GARDEN GROVE
PERCENT OF LOANS APPROVED — 1990 VS. 1991

Percent of Loans Approved	# of Census Tracts 1990	# of Census Tracts 1991
< 60%	0	2
60-64.9%	2	3
65-69.9%	3	2
70-74.9%	4	11
75-79.9%	10	10
80-84.9%	11	11
85% +	15	6
Total:	45	45

Source: U.S. Department of Thrift Supervision. Home Mortgage Disclosure Act (HMDA) data obtained from the Orange County Central Depository at the Anaheim Public Library. Table 1: Disposition of Loan Applications, by Location of Property and Type of Loan, 1990 and 1991.

Table construction by Castañeda & Associates.

CHART A-3
CITY OF GARDEN GROVE
CENSUS TRACT CONVERSION

1980 Census Tract	1990 Census Tract
881.02	881.04 & 881.05
881.03	881.06 & 881.07
888.00	888.01 & 888.02
891.03	891.04 & 891.05
999.01	999.05 & 999.06

Garden Grove 1980 census tracts with portions in other jurisdictions

1980 Census Tract	Jurisdiction(s)
761.03	Orange
875.03*	Anaheim
876.02*	Anaheim
878.06*	Anaheim, Stanton, Unincorp.
879.01*	Stanton
879.02*	Stanton, Unincorp.
881.01	Stanton
881.02*	Stanton, Unincorp.
881.03	Stanton
883.02	Anaheim
884.02	Anaheim
884.03	Anaheim
889.01	Westminster
889.03	Santa Ana
889.04*	Westminster
890.01*	Santa Ana
890.02*	Santa Ana
891.01	Santa Ana
891.02	Santa Ana, Unincorp.
891.03*	Santa Ana
992.03*	Santa Ana, Fountain Valley, Westminster
998.01*	Westminster
999.01**	Westminster
999.02**	Westminster
999.03**	Westminster
1100.01	Cypress
1100.10	Cypress

Notes: * = The majority of these tracts are located in other jurisdictions.

** = Only very small portions of these tracts are located within Garden Grove.

Mortgage Volume

TRW REDI collects information regarding the quantity and types of loans throughout Orange County. Within the City of Garden Grove, through September 1992, 7,541 loans have been made. The breakdown on types of loans is shown in Table A-29 below.

**TABLE A-29
CITY OF GARDEN GROVE
TYPES OF LOANS**

<u>Type of Loan</u>	<u># of Loans</u>	<u>Percent</u>
Resale	1,111	14.7%
Refinance	6,210	82.4%
Subdivision	92	1.2%
Construction	18	0.2%
Seller Carry	110	1.5%
Total:	7,541	100.0%

Source: TRW REDI, Summary of Mortgages Records, September, 1992.
Table construction by Castañeda & Associates.

As would be expected, given the current market conditions, the vast majority of the loans made were refinance loans. Only a small portion (14.7%) of the loans were for re-sale housing, and even a smaller portion (1.2%) were for projects within subdivisions (i.e., newly constructed houses).

With respect to size of the loan, the breakdown is presented in Table A-30 below.

**TABLE A-30
CITY OF GARDEN GROVE
BREAKDOWN OF SIZE OF LOAN**

<u>Mortgage Size</u>	<u>Number of Mortgage</u>	<u>Percent</u>	<u>Cumulative Percent</u>
\$1 - \$50,000	1,494	19.8%	-----
\$50,001 - \$202,300	5,785	76.7%	96.5%
\$202,301 - \$500,000	215	2.9%	99.4%
\$500,001 - \$1,000,000	26	0.3%	99.7%
\$1,000,001 - \$5,000,000	20	0.3%	100.0%
\$5,000,001 +	1	< .1%	
Total:	7,541	100.0%	

Median mortgage amount is approximately \$128,912.

Source: TRW REDI, Summary of Mortgages Records, September, 1992.
Table construction by Castañeda & Associates.

Interest Rates

The Orange County Register periodically reports the lowest interest rates charged by lending institutions throughout Orange County. With regard to 30 year conforming, adjustable loans, the lowest rate was 4.5%, while the lowest conforming, fixed rate was 7.75%. A complete breakdown is provided below:

**TABLE A-31
CITY OF GARDEN GROVE
ADJUSTABLE AND FIXED INTEREST RATES
FOR CONFORMING LOANS — DECEMBER 26, 1992**

30-YEAR ADJUSTABLE (CONFORMING)

Institution	Start Rate	LTV (%)	Points (%)	A.P.R. (%)
Union Bank	5.375%	80	1.500	5.801
Bank of America	4.500%	80	1.000	6.021
FrontLine Mortgage	5.625%	90	1.750	6.345
Norwest Mortgage	5.375%	80	0.000	6.390
Chase Manhattan	5.875%	80	0.000	6.457
Coast Federal Bank	4.700%	80	1.000	6.466
Downey Savings	4.875%	80	1.000	6.491

30-Year Fixed (conforming)

Western Financial	7.750%	70	2.000	7.998
Countrywide Funding	7.750%	90	2.000	8.184
FrontLine Mortgage	8.000%	80	1.500	8.197
Norwest Mortgage	8.000%	80	1.500	8.197
HomeFed Bank	8.125%	80	1.750	8.351
Union Bank	8.125%	80	2.000	8.379
Glendale Federal	8.000%	90	1.750	8.412
American Savings	8.200%	80	2.000	8.455
World Savings	8.200%	80	2.000	8.455
Home Savings	8.150%	90	1.500	8.538

Note: Conforming loans equal a maximum amount of \$202,300.

Source: The Orange County Register, December 26, 1992.

Fair Lending Practices

As a means of determining the practice of fair/equal opportunity housing, it is important to evaluate lending procedures and requirements. The creation of the Federal National Mortgage Association, or Fannie Mae, as a secondary mortgage market, necessitated the standardization of lending practices. Therefore, banks and other lending institutions developed or adopted procedures that would facilitate the purchase of their loans by Fannie Mae.

In order to ascertain fair lending practices within the City of Garden Grove, Castañeda & Associates contacted three lending institutions in the City. The three institutions were Bank of America, Home Savings and the Bank of California. Each of the lenders make a home loan package available to potential borrowers. The "Equal Housing Lender" logo was evident in two out of the three packages provided for borrowers. The exception was the Bank of California, which did provide, however, a Fair Lending Notice.

The loan packages are essentially standardized and include a variety of information. Some of the information in the packages include: checklists, questions and answers, worksheets and information on types of loans available. This type of material can aid in the decisions a potential borrower needs to make. All three institutions use the Fannie Mae "Uniform Residential Loan Application".

Within each of the loan packages there was either a separate section or a separate document that outlines fair housing. These were referred to the "Fair Lending Notice" and the "Nondiscriminatory Loan Underwriting Standards". In addition to these notifications, the packages gave names of entities to contact if a borrower believes they have been discriminated against.

Affordable Housing Financing

Funding for affordable housing requires financing for a first mortgage, second mortgage and equity. An overview of each funding source is presented in the following paragraphs.

Equity

Equity, which is the money or capital invested in the project, reduces the amount needed to be financed with a first and/or second mortgage. Although equity financing can be derived from several sources, affordable housing partnerships depend greatly on the syndication of low income housing tax credits. Ownership of these projects are usually structured as limited partnerships; corporate or individual investors are the limited partners who rely on the tax credits for market returns.

First Mortgage

Because of their low rents, affordable housing projects are financially capable of generating enough money to make monthly payments on only a relatively small first mortgage — often as low as 20% to 25% of total project cost. The amount of the first mortgage which can be supported is a function of the net operating income of the project. Tax exempt bond proceeds are frequently used for permanent financing of low income housing projects.

Second Mortgage (Gap Financing)

A second mortgage is frequently necessary to partially fill the gap between total project costs and the amount which can be supported by the first mortgage. A below market second mortgage provided by State or local governments or philanthropic organizations, could be structured with a low interest rate, no interest deferred payments, or as a due-on-sale loan.

The maker of the second mortgage often prefers subordinated debt rather than a project grant even though the former entails added risk. The mortgage usually contains restrictions to ensure that the property serves low-income families; otherwise it becomes due and payable. Local funds are often used to provide “soft seconds” — mortgages whose principle and interest payments may be deferred until cash flow is available or the project is refinanced or sold.

Thus, several funding sources are necessary as part of a financing package for a low income housing development. In general, the following distribution per financing component is typical:

Financing Component	Percent of Financing	Sources of Financing*
Equity	20% to 40%	Low Income Housing Tax Credits Housing Trust Funds
First Mortgage	20% to 40%	CCRC SAMCO Tax-exempt bonds 501(c)(3) bonds
Second Mortgage	30% to 60%	CDBG 20% Set-Aside HOME

* CCRC = California Community Reinvestment Corporation
 SAMCO = Savings Association Mortgage Corporation
 CDBG = Community Development Block Grants
 HOME = Home

Price of Land

Castañeda & Associates contacted a local realtor familiar with the City of Garden Grove. A list of current properties was obtained for purposes of estimating the price of land. According to the data, the average price per square foot for R-3 zoned property is approximately \$20.04 per square foot. Therefore, the typical vacant R-3 lot (21,095 square feet) in the City of Garden Grove would sell for around \$422,744 or \$52,843 per unit. Please refer to Table A-32 for a complete breakdown of all properties.

**TABLE A-32
CITY OF GARDEN GROVE
LAND PRICES BY TYPE**

<u>Residential</u>				
<u>Address</u>	<u>Zoning</u>	<u>Size</u>	<u>Price</u>	<u>Price Per Square Foot</u>
12062 Gilbert	R-3	14,940	\$269,900	\$19.06
12781 Josephine	R-3	11,400	\$120,000	\$10.52
12822 Westlake	Residential	N/A	\$255,000	N/A
11171 Westminster	R-3	8,488	\$150,000	\$17.67
12522 Buaro	Residential	17,550	\$230,000	\$14.80
13581 Fairview	R-1 (1)	24,750	\$324,900	\$14.51
8682 Lampson	R-3	5,452	\$179,500	\$32.892
Newland	R-1	N/A	\$124,000	N/A
12431 Pearce	Residential	23,407	\$199,900	\$8.00
12831 Westlake	CCR	N/A	\$200,000	\$24.84

Average price/s.f. for R-3 = \$20.04.

Average price/s.f. for all residential = \$17.79.

<u>Commercial</u>				
<u>Address</u>	<u>Zoning</u>	<u>Size</u>	<u>Price</u>	<u>Price Per Square Foot</u>
9562 Chapman	Commercial	38,376	\$890,000	\$23.19
8641 G.G. Blvd.	C2	27,652	\$649,000	\$23.47
8722 G.G. Blvd.	Commercial	36,960	\$995,000	\$26.92
12675 Westminster	C2	12,070	\$299,900	\$24.84

Average price/s.f. for all commercial = \$24.61.

<u>Other</u>				
<u>Address</u>	<u>Zoning</u>	<u>Size</u>	<u>Price</u>	<u>Price Per Square Foot</u>
Hazard/Euclid	PUD	41,600	\$1,248,000	\$30.00
12281 Euclid	OP	51,240	\$999,999	\$25.37

Average price/s.f. for all "other" zoning = \$27.69.

Source: Patsy Yotsukura, Realty World — Orco Properties, December 1992.

Table construction by Castañeda & Associates.

Notes: (1) Approved for 5 units per MLS.
(2) "Easy to Build 3 Units" according to MLS.

Cost of Construction

Construction costs are the second highest cost component of new housing. Construction costs include: building materials; labor; general and temporary requirements (such as equipment and trailer); project supervision; and contractors overhead and fee. These costs vary depending on unit size, quality of materials, such as roofing and carpets, and project amenities. Because of this, it is difficult to establish an absolute measure of construction costs. Based on information from a local builder, average construction cost for single-family housing is approximately \$36-\$37 per square foot. Average construction costs for multiple family unit can range between \$35-\$50 per square foot, depending on project size and number of stories.

Owner Housing Costs

Housing value and cost data are available from recently published 1990 Census information. Table A-33 reports on the value of owner-occupied housing as of April 1990.

TABLE A-33
CITY OF GARDEN GROVE
VALUE OF OWNER-OCCUPIED HOUSING — 1990

Value	Number of Units	Percentage Distribution
< \$100,000	690	2.6%
\$100,000 - \$124,999	1,141	4.3%
\$125,000 - \$149,999	1,991	7.5%
\$150,000 - \$174,999	3,531	13.3%
\$175,000 - \$199,999	5,999	22.6%
\$200,000 - \$249,999	8,973	33.8%
\$250,000 - \$299,999	3,026	11.4%
\$300,000 - \$399,999	982	3.7%
\$400,000 - \$499,999	133	0.5%
\$500,000 or more	80	0.3%
Total:	26,546	100.0%

4,062 owners did not respond to this question. The above numbers represent a percent allocation of the owners who did respond to this question to the 100% total owner occupied housing units of 26,546.

1990 median value approximately — \$199,850

1980 median value approximately — \$87,700

Percent change in home value approximately — 128%

Source: State of California, State Census Data Center, 1990 Census of Population and Housing, Summary Tape File 1.

Table construction by Castañeda & Associates.

As noted in the above table, only 14.4% of the owner units had an estimated value of less than \$150,000. In addition to the 1990 Census data, a review was made of the asking prices of resale homes per the newspaper advertisements in the Sunday edition of the Orange County Register for November 22, through December 13, 1992. The statistical results for single family homes are summarized in Table A-34.

**TABLE A-34
CITY OF GARDEN GROVE
ASKING PRICES FOR RESALE HOMES PER THE
SUNDAY EDITION OF THE ORANGE COUNTY REGISTER
NOVEMBER 22, 1992 — DECEMBER 13, 1992**

	2-Bdrm.	3-Bdrm.	4-Bdrm.	5-Bdrm.+	Total	%
< \$160,000	3	12	0	0	15	23.4%
\$160,000-\$169,999	0	9	5	0	14	21.9%
\$170,000-\$179,999	0	5	2	0	7	10.9%
\$180,000-\$189,999	0	6	1	0	7	10.9%
\$190,000-\$219,990	0	1	4	1	6	9.4%
\$200,000-\$224,999	0	6	1	2	9	14.1%
\$225,000-\$229,999	0	1	1	0	2	3.1%
\$230,000 +	0	0	1	3	4	6.3%
Total:	3	40	15	6	64	100.0%

Source: Orange County Register, November 22 through December 13, 1992.

Table construction by Castañeda & Associates.

What these data indicate is that the distribution of "asking prices" of homes in 1992 was considerably lower than estimated owner costs of the 1990 Census. This may not mean that there has been a precipitous drop in housing prices. Instead, the distribution may only reflect that the owners who have their homes on the market tend to live in units with values below the median cost in the City.

Rental Housing Costs

The distribution of contract rents is shown in Table A-35. Only 10.4% of all rental units had monthly rents of less than \$500. An estimated 54.2% of the rental supply had monthly costs between \$500 and \$750. A 2-person very low income household can afford a monthly payment of \$528, while a 2-person low income person can afford a monthly payment of \$773. Thus, the rental housing supply offers affordable housing costs.

TABLE A-35
CITY OF GARDEN GROVE
DISTRIBUTION OF CONTRACT RENTS — 1990

<u>Rent</u>	<u>Number of Units</u>	<u>Percentage Distribution</u>
< \$500	1,871	10.4%
\$500 to \$549	1,511	8.4%
\$550 to \$599	1,781	9.9%
\$600 to \$649	1,961	10.9%
\$650 to \$699	2,105	11.7%
\$700 to \$749	2,393	13.3%
\$750 to \$999	4,571	25.4%
\$1,000 or more	<u>1,799</u>	<u>10.0%</u>
Total:	17,992	100.0 %

1990 median rent approximately — \$689

1980 median contract rent — \$317

Percent change in median rent — 117%

236 renters reported no cash rent.

Source: State of California State Census Data Center, 1990 Census of Population and Housing, Summary Tape File 1.

Table construction by Castañeda & Associates.

Note: 434 renter households did not respond to this question. The above numbers represent a present allocation of the renters who did respond to this question to the 100% count of 17,992 renter households.

Another partial survey was completed as part of the Housing Element Update. The results of that survey are presented in Table A-36 below.

**TABLE A-36
CITY OF GARDEN GROVE
MONTHLY APARTMENT RENTS — 1992**

Monthly Rent	Bachelor	1-Bdrm.	2-Bdrm.	3-Bdrm.	Total	%
< \$500	19	20	44	12	95	4.1%
\$500-\$549	76	48	0	2	126	5.5%
\$550-\$599	9	65	0	0	74	3.2%
\$600-\$649	21	414	0	0	435	19.0%
\$650-\$699	21	192	68	0	281	12.2%
\$700-\$749	22	28	311	0	361	15.7%
\$750-\$999	47	39	533	72	691	30.1%
\$1,000 +	0	162	66	5	233	10.2%
Total:	215	968	1,022	91	2,296	100.0%

Source: December 1992/January 1993 Apartment Housing Survey conducted by Castañeda & Associates and Planning Department.

ESTIMATED DEVELOPMENT COSTS

With regard to development standards, please refer to the general development standards section. For R-3 lots, the front yard setback would be 20 feet. The rear and side yard setbacks vary depending on types and sizes of adjacent properties. Assuming that a proposed project was two stories, adjacent to two story buildings, the rear setback is 35 feet from the adjacent building and the side setback is 15 feet from the adjacent building. For illustration purposes an assumption of a 20 foot and 10 setback will be used on the proposed building.

Therefore, assuming a 20 foot front and rear setback and a 10 foot side setback, and lot dimension, of 100 feet wide by 210 feet deep (21,000 square feet), the net buildout area would be 13,600 square feet. In addition to these setback requirements, there are unit size requirements. Assuming all units in the proposed project were to be 2 bedrooms, each unit would be required to be a minimum of 900 square feet for a total of 7,200 square feet of construction. According to the Zoning Code if this proposed project was not adjacent to an arterial or secondary arterial, it would require 16 parking spaces for residents and four spaces for guest parking (20 total). Adjacent to an arterial, it would require 2.75 spaces per unit for a total of 22 spaces.

In order to evaluate a project feasibility with the above characteristics and assumptions, a preliminary proforma analysis was completed for three projects types. The three projects are: three (3) single family dwellings; an eight (8) unit apartment complex; and a 30 unit senior apartment complex analysis is provided in the following table.

TABLE A-37

[illegible]

**CHART A-4
CITY OF GARDEN GROVE
PROFORMA ANALYSIS — EXPLANATION OF TERMS**

1. Land Acquisition: Based upon the City's vacant land survey, an average size was calculated for vacant lots within each zoning district. Next, asking prices were obtained from a local realtor and a price per square foot was determined for each site by its zoning designation. Finally, the price per square foot amount was applied to the average size vacant lot with its corresponding zoning designation. For example, the average vacant R3 lot is 21,095 square feet at an average asking price of \$20.04 per square foot; thus, a land acquisition price of \$422,744.

2. Legal and Organizational: Attorney fees associated with legal documentation and organization of any partnership agreements.

3. & 4. Appraisal and Toxic Report: Usually an appraisal may cost between \$3,500 to \$15,000. However, given the small scale of the projects, an allocation of \$2,000 was made for the cost of the appraisal and \$1,500 for the toxic report.

6. Mapping Environmental Documentation and Discretionary Actions: This is based on the assumption of the City requiring a parcel map to be recorded for each project prior the the commencement of construction. Based on the City's current fees, the amounts are as follows:

	3 SFDs	8 Apartments	30 Senior Apartments
Parcel Map Filing	\$930	\$900	\$900
Environmental (Negative Decl.)	\$250	\$250	\$250
Discretionary Actions (Site Plan)	\$1,000	\$1,000	\$1,000
Total:	\$2,180	\$2,150	\$2,150

5. & 7. Architecture/Engineering: The estimate is calculated as 3% of the total construction costs for the project \$166,500, \$252,000 and \$675,000, respectively. These costs can be as high as 4%, but vary depending on the complexity of the site and physical conditions.

CHART A-4 CONTINUED
CITY OF GARDEN GROVE
PROFORMA ANALYSIS — EXPLANATION OF TERMS

8. Escrow, Title Insurance and Recording: This estimate is an allowance for these costs during the development phase.

9. City Fees

	Single Family	Apartments	Senior Apartments
Parks and Recreation	\$1,200/unit	\$1,200/unit	\$1,200/unit
Drainage	\$400 - \$1,400/ac	\$400 - \$1,400/ac	\$400 - \$1,400/ac

10. School Fees: School fees are based upon the current rate of \$2.65 per square foot of livable area. The fee amounts are \$3,975 per unit for the three SFDs and \$19,080 for the eight unit apartment complex. According to a 12/30/92 telephone conversation with Dr. Ron Walter of the Garden Grove Unified School District, school fees are waived on projects that are entirely occupied by seniors.

11. Building Permits: Based on the City's current building permit fee schedule (as illustrated in the City's current Housing Element), the building permit fees for a 1,500 square foot single family home is \$1,609.13 or \$1.07 per square foot. For assumption purposes, this per square foot amount was used for the multi-family and senior housing projects. The fees are calculated as follows:

	Single Family Residential Approximately 1,500 S.F./DU	8 Apartments 900 S.F./unit	30 Senior Apartments 500 S.F./unit
Building	\$847.33		
Electrical	\$69.75		
Plumbing	\$61.50		
Mechanical	\$28.00		
Water meter	\$602.55		
Total:	\$1,609.13/unit	\$963/unit	\$535/unit

Source: City of Garden Grove, Housing Element, 1989.

**CHART A-4 CONTINUED
CITY OF GARDEN GROVE
PROFORMA ANALYSIS — EXPLANATION OF TERMS**

12. Construction Loan Points: This estimate is based on 2-1/2% for apartments and 2% for, for sale projects (per Mr. Mercer).

13. & 14. On-Site and Off-Site Improvement Costs: Given the small scale of the projects, and the likelihood of any new construction being an infill project, it is assumed that adequate infrastructure would already exist or have negligible cost.

15. Construction Costs: A per square foot cost factor was applied to the gross square footage of each project to determine total construction costs. This figure was selected on the basis of industry averages and a desire for a high quality project. The cost factors are as follows: single family — \$37 per s.f.; multi family — \$35 per s.f.; and seniors — \$45 per s.f. Senior projects are typically at a higher rate than general apartment due to the necessity to add elevators and other on-site amenities.

16. Property Tax: This is based on the unimproved value of the land or the acquisition cost, and is 1.1%. This also assumes a one year construction period.

17. Construction Interest: The criteria for this cost factor is 8-1/2% for 12 months on an average of 60% of the loan outstanding for apartment and 8.0% for, for sale housing. This is based on information obtained from Mr. Herb Mercer of Chino Valley Bank. This institution currently has a project under construction within the City of Garden Grove.

18. Marketing: This amount is based on 2% of the selling price for, for-sale projects and cost allocation for advertising, brochures and personnel for the rental units.

18. Rent Up Expense: This amount is based on 15% of the first year's gross income. The rent up amount represents the amount needed to lower fixed and variable operating expenses prior to full occupancy. The 15% standard is based on CHFA guidelines.

**CHART A-4 CONTINUED
CITY OF GARDEN GROVE
PROFORMA ANALYSIS — EXPLANATION OF TERMS**

19. Sales Commission: This amount represents the commission amount for the three unit for-sale project and assumes the developer does not have a staff sales agent and uses a realtor to sell the product. The amount is based on 6% of the sales price per unit and a sales price of \$250,000.

20. Development Management: Consultant costs associated with entitlement processing of each proposed project.

21. Contingency: This estimate is an allowance for this cost factor.

22. Permanent Loan Points: This amount is at 2% of the total development costs for both apartments and for sale housing (per Mr. Mercer).

Permanent Low Interest: For apartment projects and for sale housing, the interest rate is 9% fixed for 25 years (per Mr. Mercer). This cost is not incurred prior to occupancy of a project and is not included in the proforma analysis as a cost.

ARTICLE 34

Article 34 of the State Constitution requires local referendum authority before a state public body can, in any manner, develop, construct, or acquire certain types of low-rent housing projects in a community. This referendum process can act as an impediment to the development of some affordable housing developments. Article 34 states in relevant part:

"No low rent housing project shall hereafter be developed, constructed, or acquired in any manner by any state public body until, a majority of the qualified electors of the city, town, or county, as the case may be, in which it is proposed to develop, construct, or acquire the same, voting upon such issue, approve such project by voting in favor therefore at an election to be held for that purpose, or any general or special election."

In effect, an Article 34 referendum is required if three narrowly-defined factors are found to exist: 1) a state public body (including a city or county) which; 2) develops, constructs, or acquires; 3) a low-rent housing program. If any one of the three factors is not present, Article 34 is not applicable. An Article 34 referendum would usually be necessary if: a) the rental development were occupied by more than 49% lower income households; and b) the City either owned the project or the project secured financing from public agencies greater than 50% of the development costs.

SPECIAL HOUSING NEEDS

The City's Housing Element must include:

"Analysis of any special housing needs, such as those of the handicapped, elderly, large families, farmworkers, families with female heads of household, and families and persons in need of emergency shelter."

Handicapped

The Federal Rehabilitation Act of 1973, Section 104.3(j) defines a disabled person as "any individual who has a physical or mental impairment which substantially limits one or more major life activities, has record of such an impairment, or is regarded as having such an impairment."

The Federal Department of Health and Human Services estimates that 10% of the total population in the United States is handicapped. Applying the national figures to the City's 1991 population would result in an estimate of 14,305 handicapped persons.

The State Department of Rehabilitation was contacted to determine whether that agency maintains city specific data on handicapped persons. The State Department staff indicated that assumptions could not be made from their client base as it represents only a portion of the handicapped individuals in each community. The Rehabilitation Department provides vocational rehabilitation to disabled youths and adults. The client base changes frequently and their housing needs vary greatly, depending on the disability. That agency also suggested a guideline of approximately 10% handicapped in any given population.

According to the 1990 Census, 7,201 Garden Grove residents stated that they had a mobility limitation, self-care limitation or both a mobility and self-care limitation. This represents 5.03% of the City's 143,050 total residents. A complete breakdown is shown in Table A-38.

**TABLE A-38
CITY OF GARDEN GROVE
STATUS OF HANDICAPPED PERSONS BY SEX AND AGE
1990**

Handicap	Male			Female			Total
	16-64	65-74	75+	16-64	65-74	75+	
Mobility Limitation	418	128	145	751	204	392	2,038
Self-Care Limitation	1,625	126	57	1,069	178	121	3,176
Both Mobility and Self-Care Limitation	470	157	134	659	212	355	1,987
Total:	2,513	411	336	2,479	594	866	7,201

Source: State of California, State Census Data Center, 1990 Census of Population and Housing, Summary Tape File 3, Table P69.

Table construction by Castañeda & Associates.

In 1985, the State of California adopted building regulations that required any privately funded development with five or more units of multi-family rental housing to include handicapped adaptability features for all accessible (ground floor) units. Until 1989, developers could apply for a hardship exemption if a maximum of \$650 per unit was spent in adapting units for handicapped access. Many developers applied the required funds to only one aspect of accessibility, such as an exterior ramp, but failed to take into account interior design. Required interior and exterior modification usually cannot be accomplished at a cost of \$650 per unit.

The City of Garden Grove follows the California State Title 24 which requires all new multiple residential units to be accessible to handicapped persons. However, last year, Title 24 of the California Code of Regulations was amended to repeal the cost cap. It is now more difficult to obtain a hardship exemption. The developer must show that the handicapped requirements cause the project to become financially infeasible or must prove that the modifications would necessitate the removal of major structural elements.

Elderly

The 1990 Census estimates the City's population to be 143,050 as of April 1990. The age sex distribution of the elderly population for 1980 and 1990 is shown in tables A-39 and A-40. According to the 1990 Census, 12.6% (N = 17,986) of the City's population is 60 years of age or older.

During the period for 1980 and 1990, the percentage of the population over 60 years of age increased by 1.4%, from 11.2% to 12.6% in 1990. However, the rate at which the elderly population grew was faster than the City's population as a whole, 30% for people over 60 years of age versus 16% for the entire City. During the decade, the population over 60 years of age increased by 4,156 people.

About 77% (N = 5,434) of all senior households are homeowners (see Table A-41). Senior, owner occupied households represent approximately one-fourth (20.5%) of all owner occupied households, but only 15.8% of all households. Senior renters only comprise 8.9% of the entire renter households. It is assumed that most of the senior homeowners do not experience financial assistance needs. Senior renters in the City would experience rental assistance needs, however. In this context, it may be appropriate for the City to encourage forms of rental assistance in addition to the Section 8 program.

TABLE A-39
CITY OF GARDEN GROVE
AGE/SEX DISTRIBUTION OF THE SENIOR
POPULATION AGED 60 + — 1980

Age	Male	%	Female	%	Total
60 - 61	1,018	48.1%	1,099	51.9%	2,117
62 - 64	1,237	46.9%	1,403	53.1%	2,640
65 - 74	2,371	42.7%	3,180	57.3%	5,551
75 - 84	818	31.4%	1,787	68.6%	2,605
85 +	231	25.2%	686	74.8%	917
Total:	5,675	41.0%	8,155	59.0%	13,830

Total City Population: 123,307, 11.2% over 60 years old.

Source: County of Orange, 1980 Census Report, Volume 3A, Selected Population Characteristics.

Table construction by Castañeda & Associates.

TABLE A-40
CITY OF GARDEN GROVE
AGE/SEX DISTRIBUTION OF THE SENIOR
POPULATION AGED 60 + — 1990

Age	Male	%	Female	%	Total
60 - 61	1,036	48.3%	1,109	51.7%	2,145
62 - 64	1,519	45.6%	1,810	54.4%	3,329
65 - 74	3,516	43.8%	4,510	56.2%	8,026
75 - 84	1,238	36.3%	2,165	63.7%	3,403
85 +	277	25.6%	806	74.4%	1,083
Total:	7,586	42.2%	10,400	57.8%	17,986

Total Population: 143,050, 12.6% over 60 years of age.

% change in total population = 16.0% increase.

% change in elderly population = 30.0% increase.

Source: State of California, State Census Data Center, 1990 Census of Population and Housing, Summary Tape File 1, Table P12.

Table construction by Castañeda & Associates.

**TABLE A-41
CITY OF GARDEN GROVE
AGE OF HOUSEHOLDER BY TENURE — 1990**

Age of Householder	Owner Occupied	Renter Occupied	Total Households	Percentage Distribution
15 to 24	326	1,752	2,078	4.7%
25 to 34	4,577	6,587	11,164	25.0%
35 to 44	5,767	4,486	10,253	23.0%
45 to 54	5,221	2,254	7,475	16.8%
55 to 64	5,221	1,320	6,541	14.7%
65 to 74	3,788	909	4,697	10.6%
75 years +	1,646	684	2,330	5.2%
Total:	26,546	17,992	44,538	100.0%

Source: State of California, State Census Data Center, 1990 Census of Population and Housing, Summary Tape File 1, Table H12.

Table construction by Castañeda & Associates.

Family/Large Households

In 1990, Garden Grove had 44,538 total households, of which 8,574 were large households, accounting for 19.3% of the City's total households while in 1980 there were 6,202 (14.9%) large family households according to the City's 1989 Housing Element. The number of large households has increased over the decade in actual and relative numbers. Therefore, large households experienced a need for more space at affordable housing costs. This particular need is experienced by large family renter households. About one half (50.1%) of all large family households resided in renter-occupied dwellings as of April 1990.

**TABLE A-42
CITY OF GARDEN GROVE
HOUSEHOLD SIZE DISTRIBUTION — 1990**

Household Size	Owner Occupied	Renter Occupied	Total Households	Percentage Distribution
1	4,223	3,219	7,442	16.7%
2	8,712	4,247	12,959	29.0%
3	5,028	3,244	8,272	18.6%
4	4,301	2,990	7,291	16.4%
5	2,081	1,733	3,814	8.6%
6	1,005	992	1,997	4.5%
7	1,196	1,567	2,763	6.2%
Total:	26,546	17,992	44,538	100.0%

Source: State of California, State Census Data Center, 1990 Census of Population and Housing, Summary Tape File 1, Table H18.

Table construction by Castañeda & Associates.

Farmworkers

SCAG has estimated that there are 107 farmworker families residing in Garden Grove. It is assumed that these families are part of the permanent population. Therefore, housing needs such as overpayment or overcrowding would have been discussed in previous sections of the Housing Element.

Single-Parent/Female Headed Households

The housing needs of single-parent households have increased in recent years. The most significant portion of this group is the female-headed households. Data on female headed households are available from recently published 1990 Census information. Of the City's total households (44,528), 10,673 or about 24% were headed by a female. The distribution of these households is listed below:

√	1-person female households	4,236
√	2-person + family female householder	5,297
	With related children	3,126
	With no related children	2,171
√	Non-family female householder	<u>1,140</u>
		10,673

Families and Persons in Need of Emergency Shelter

Site identification became a requirement, effective January 1, 1988, or the next periodic update of the housing element pursuant to Government Code Section 65588, whichever is later. Housing element law requires an "identification of adequate sites which will be made available through appropriate zoning and development standards and with public services and facilities needed to facilitate the development of emergency shelters and transitional housing" (Government Code Section 65583 [c][1]).

According to the HCD, localities should use the Uniform Housing Code (UHC) Space and Occupancy Standards, which apply to shelters. These standards specify, for example, that sleeping accommodations for 2 persons require a minimum of 70 square feet of space and an additional 50 square feet of space for each additional person.

Any of the following could meet the adequate sites requirement for a need of no more than 10 to 20 persons: apartments; mobilehomes; recreational vehicles with hook-ups; units in a single-room occupancy structure (SRO); a large single-family unit; church facilities; commercial; or other multi-use facilities.

For a need greater than 20 persons, one or more of the following strategies would satisfy the site requirements; a program to help increase the capacity of existing shelters; identification of suitable structures such as warehouses, schools, or hotels that could be used as, or converted to, shelters; identification of specific sites which have the potential for shelter or transitional housing development during the planning period of the housing element (e.g., sites identified in a shelter ordinance); or establish a shelter transitional housing zone or zones.

The issue of sheltering the homeless has become one of increasing importance to the City. As reported by the Orange County Homeless Issues Task Force, there may be as many as 10,000 individuals in Orange County whom are without permanent shelter. The stereotypic perception of the homeless population as being primarily males who suffer from alcoholism or who have been disinstitutionalized has changed dramatically. The greatest proportion of those in need of shelter are Caucasians who have become unemployed or widowed or who have been priced out of the increasingly expensive housing market. Additionally, a significant segment of this population appears to be composed of families.

Although the homeless population is transitory by nature, an attempt has been made to assess the number of individuals who are without shelter within the City. Three methods were used to determine the extent of the problem: interviews were conducted with staff from the Garden Grove Police Department, churches, missions, and temporary housing shelters to obtain estimates and statistics; a daily count was performed as recommended in the State HCD handbook on providing shelter for the homeless (performed for one week between 2 a.m. and 6 a.m. and between 10 a.m. and 12 noon); an estimate was drawn of the proportionate percentage of the County's entire homeless population.

The interview process indicated that Garden Grove's homeless population is estimated by the various groups to be composed of between 300 and 400 individuals. The daily count or "grid" method did not support this indication, however, there are a number of factors such as concealment, which may account for the significantly lower numbers. Garden Grove's population is approximately 5% of Orange County's total population. It is assumed, therefore, that the City would have no more than 5% of the County's homeless population. On the basis of a maximum overall homeless population of 10,000 for the County, Garden Grove would have no more than 500 persons in need of shelter.

Due to the nature and extent of the problem, a meaningful solution can only be provided within a regional or interjurisdictional context. Nonetheless, the City has developed various solutions to the homeless problem within its own boundaries.

ASSISTED HOUSING AT RISK OF CONVERSION TO MARKET RATE HOUSING

Section 65583 of the Government Code, as amended, requires that all cities include in their housing elements, an analysis and program efforts for preserving assisted housing developments. The purpose of the analysis is to identify actions the jurisdiction can take to preserve units which are at risk of being converted to market use, to adequately plan for preventing or minimizing tenant displacement and to preserve the local affordable housing stock. The analysis has been prepared and the information is presented as follows:

- √ Inventory of Units At-Risk of Losing Use Restrictions;
- √ Cost Analysis of Preserving At-Risk Units Versus Replacing Them;
- √ Resources for Preservations;
 - Nonprofit Entities Capable of Acquiring and Managing At-Risk Projects;
 - Potential Preservation Financing Sources and Estimates of Available Funds;
- √ Quantified Objective — Number of At-Risk Projects/Units to be Preserved; and
- √ Programs — Efforts to Preserve Units At-Risk of Losing Use Restrictions.

There are five federally- assisted housing developments in the City:

<u>Project</u>	<u>Units</u>	<u>Type</u>
Acacia Villa	160	Senior
Garden Grove Manor	78	Family
Westminster Arms	88	Family
Garden Manor	117	Senior
Jordan Manor	65	Senior

In June 1979, the Garden Grove Agency for Community Development entered into an agreement with Acacia Villa Apartments. This Agreement contained covenants which the Grantee agreed to devote the property to a very low-income senior citizen and handicapped persons housing project for a period ending December 31, 2021. According to the City's current Housing Element:

To date there has been no official notification to the City by the developer of any intention to convert this project and it is unlikely that this will occur because the developer is one of the largest subsidy holders in the nation which owns and maintains units for low-income seniors. On May 5, 1992, this was confirmed by Carol Gladney, Director of Property Management for Goldrich & Kest who indicated their intent to renew their Section 8 Agreement as long as they are available.

According to information provided by HUD, the Garden Grove Manor is a cooperative and owned by the tenants. It is not an "at-risk" project for purposes of the Housing Element analysis which is required of *rental* housing developments.

The Westminster Arms is covered by Federal legislation. According to information from the California Housing Partnership Corporation the current owners do not intend to prepay the mortgage. An official notice of the owners intent has not been submitted to HUD. According to data supplied by the California Housing Partnership Corporation, the owner of this project intends to extend the length of the assistance. HUD has indicated that the Garden Manor Manor is a senior nonsubsidized project.

Jordan Manor (11441 Acacia Parkway) is a 65-unit Section 202 senior housing development. The project is owned by a nonprofit entity and can not prepay its mortgage. The Section 8 rental assistance contract expires September 4, 2005. It is assumed that if the Section 8 program is available in the year 2005 that the nonprofit owner would seek to renew the Section 8 contract at that time.

Other affordable projects located in the City include Esperanza, Shelter for the Homeless, Valley View, Tudor Grove, and Grove Park. These five projects include a total of 317 affordable housing units. The list on the following page identifies for each project the Agreement Date, Project Name, # of Affordable Units, Length of Affordability and Term of Affordability. None of the projects have housing covenants that will expire between 1995 and 2005.

Agreement Date	Project Name	# of Units	Years of Affordability	Term of Affordability
6/5/89	Esperanza	28	50	1989-2139
5/3/94	Shelter for the Homeless	5	15	1995-2010
7/90	Valley View	36	30	1990-2020
1/28/92	Tudor Grove	144	30	1992-2022
1/28/92	Grove Park	104	30	1992-2022

Source: City of Garden Grove, Community Development, Neighborhood Improvement Division

ENERGY CONSERVATION OPPORTUNITIES

An analysis of opportunities for energy conservation with respect to residential development is required by Section 65583(a)(7) of the Government Code. According to the HCD:

"The purpose of this analysis is to show that the locality has to consider how energy conservation might be achieved in residential development and how energy conservation requirements may contribute to the affordability of units.

Following are examples of local policies, plans, and development standards that have been successful in reducing energy costs of consumption:

- promotion of compact, higher density, and infill development;
- the active, constructive enforcement by local building officials of existing state residential energy conservation standards;
- standards for street widths, landscaping of streets and parking lots to reduce heat loss or provide shade; and
- standards for energy efficient retrofits to be met prior to resale of homes."

The State Office of Planning and Research (OPR) has offered the following advice on this code requirements:

- √ Opportunities in the design and construction of individual units.

- ✓ Opportunities in the design of subdivisions.
- ✓ Assessment of the effect of energy conservation measures on the cost of housing in the long run.
- ✓ Proximity of proposed residential development to employment centers, school and other services and availability of transit services.

In mid-1979, the City of Garden Grove joined with a group of other local municipalities and the Energy Systems Group of General Motors for the purpose of examining energy use within the community. This effort provided the City with a community energy audit, a description of local historical energy consumption patterns and the expected demand projection for future years.

The City's energy consumption patterns were identified by sector and source of energy. The residential sector comprises about 90% of all electrical utility customers in the City, and consumes 45.2% of the total electricity used. Between 1974 and 1978, residential consumption of electricity increased by an average of 2.5% per year. The residential sector comprises about 95% of all natural gas customers and consumes 79.5% of the total natural gas used. Between 1971 and 1979, the years for which data was supplied by Southern California Gas Company, residential consumption of natural gas decreased an average of three percent per year. The 1980 Census shows that the majority of Garden Grove's households (88.2%), use gas for cooking and water heating.

As part of its commitment to promoting energy efficiency and reducing the cost of energy to the City's households, the City Council adopted a citywide energy policy and a community wide Energy Management and Action Plan (Energy - MAP). The overriding goal of the City's energy policy is to provide direction, guidance, support and coordination of conservation efforts by working closely with residential, commercial, industrial and other sectors within the community.

Most existing buildings in Garden Grove, other than some recently constructed buildings, were built during periods of little concern about energy costs or potential shortages. As a result, the buildings are not energy efficient and needlessly consume vast amounts of energy. Much of this energy could be saved in structures retrofitted with energy saving devices. A comprehensive program to promote energy efficiency in Garden Grove residences, commercial and industrial centers includes the following action guidelines:

- √ Promote energy efficiency and conservation in all residential commercial and industrial structures within the City.
- √ Encourage building designs and orientations which will minimize energy consumption.
- √ Encourage business/industry to develop and promote energy conservation.
- √ Encourage adoption of state and federal legislation to provide financial incentives/advantages for energy conservation measures.

GARDEN GROVE GENERAL PLAN

◆ SAFETY

It is the general objective of the City to reduce loss of life, personal injuries, loss or damage to property, and the economic and social costs of crime, seismic activity, fire, flooding, and/or hazardous materials.

1. INTRODUCTION

The Safety Element provides an assessment of natural and man-made hazards in the City, including, but not limited to: seismic and geologic hazards, flood potential, dam inundation, incidence of crime and fire, as well as hazardous materials accidents. The Safety Element provides a framework by which safety considerations are introduced into the City's planning process. It strengthens the City's existing municipal codes, assists in project review and permitting processes, and identifies and mitigates hazards. The Element provides policies directed at identifying and reducing hazards; and provides the framework for subsequent emergency preparedness planning.

2. AUTHORITY FOR THE ELEMENT

Section 65302(g) of the State of California Government Code stipulates that "... the general plan shall include a safety element for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence and other geologic hazards known to the legislative body; flooding; and wildland and urban fires. The safety element shall include mapping of known seismic and other geologic hazards. It shall also address evacuation routes, peakload water supply requirements, and minimum road widths and clearances around structures, as those items relate to identified fire and geologic hazards."

The effect of this legislation is to require local communities to be particularly cognizant of safety hazards; and in their planning programs, to incorporate various means for reducing loss of life, injuries, damage to property, and economic and social dislocations resulting from these hazards.

3. RELATIONSHIP TO OTHER ELEMENTS

The safety element must be consistent with other elements of the General Plan, complementing the goals and policies of related elements. The safety and welfare of the public are priorities, however, social, economic, political and aesthetic factors also need to be considered and balanced with safety needs. Therefore, rather than competing with the goals and policies of related elements, the safety element has been designed to incorporate safety issues into the planning process.

- Safety must be considered when planning for urban density, as well as the location and distribution of land uses. Therefore, the Safety and Land Use Elements are inherently related.
- The Circulation and Infrastructure Element emphasizes transportation issues, which is relevant to the Safety Element in that efficient traffic flow benefits emergency response and evacuation objectives. Also, the Circulation and Infrastructure Element identifies areas of localized flooding created by storm drainage deficiencies.
- The location of housing within the City is influenced by the Safety Element which identifies potential hazards in relation to development in the City. While working within the limitations established by the Land Use and Safety Elements, the City must provide adequate housing opportunities to its residents.
- The Noise and Air Quality Elements, like the Safety Element, are concerned with the welfare of the public. Issues are addressed in each element which relate to specific land use decisions.
- The Open Space/Conservation Element describes land that is preserved for the health, well-being and safety of the residents of Garden Grove, thereby establishing a relationship between the Safety and Open Space Elements.
- The provisions and recommendations of this Element have been made in a fiscally sensitive manner, in support of the Economic Development Element.
- This Element is closely related to the Community Design and Parks, Recreation and Cultural Activities Elements in that defensible space planning measures have been incorporated into these Elements to ensure the safety of the community.
- The Growth Management Element ensures that the provision of facilities is concurrent with need, thereby preventing growth from occurring in inappropriate places where the health and safety of the community would be compromised.

4. SUMMARY OF FINDINGS

4.1 POLICE PROTECTION

Garden Grove Police Department

The City of Garden Grove Police Department is headquartered in the City's Civic Center, with substations located throughout the City. There are

*Garden Grove has 1.08
Sworn Officers per 1,000
Population*

approximately 1.08 sworn personnel per 1,000 residents and 0.43 civilian personnel per 1,000 residents. By comparison, a standard of 1.7 officers per 1,000 residents is considered excellent.

*Community Policing
Bureau*

The Police Department is divided into three major components that are designated as Bureaus: the Community Policing Bureau, the Department Services Bureau, and the Administrative Services Bureau. Each Bureau has Divisions and Units responsible for specific tasks.

The Community Policing Bureau has the primary responsibility for the delivery of police services to the citizens of Garden Grove. The City is divided into two geographical patrol divisions, the West Patrol Division and the East Patrol Division, each commanded by a lieutenant. Supervisors and officers in each division are responsible for community and neighborhood problem solving. The Crime Prevention Unit is responsible for all crime prevention efforts and programs, community outreach efforts and special events designed to educate residents and encourage members of the community to form "partnerships" with the Police Department. The Community Policing Bureau also encompasses the Gang Suppression Unit, the Neighborhood Traffic Unit, the Special Investigations Unit, and the Youth Services Unit.

*Department Services
Bureau*

The Department Services Bureau consists of four divisions:

- The Records Division is responsible for the timely and efficient flow of official police documents and computerized information. Records personnel also manage the criminal warrant system and serve the public who visit the Police Building.
- The Communications Division receives all incoming calls for police services, dispatches all calls requiring a mobile response, and manages the Alarm Ordinance fee process.
- The Investigations Division handles follow-up investigations for all crimes that occur against persons or property. The forensic Services Unit is responsible for the collection and analyzation of items of evidence. The Property and Evidence Unit is responsible for maintaining all Department-owned property, evidence, and found property.
- The Personnel and Training Division is responsible for all personnel recruitment and selection efforts, training programs, Internal Affairs investigations, and managing the Reserve Police Officer, Cadet, and Police Service Aide programs.

*Administrative Services
Bureau*

The Administrative Services Bureau provides administrative support to the Chief of Police as well as the entire Department. Bureau personnel manage the budget and all fiscal matters, the Planning and Research function, the

*Average Response Time is
4 Minutes, 20 Seconds*

*Part I Crime has Steadily
Declined Since 1990*

Accreditation process, and coordinates the Volunteers in Policing (V.I.P.) program. Bureau personnel currently oversee a comprehensive effort to reduce youth violence through the implementation of a number of long-term strategies and programs. The Administrative Services Bureau Commander also serves as the Acting Chief of Police in the Chief's absence.

The Department has several special programs including: remote sub-stations with translators for the Hispanic, Vietnamese and Korean communities, an officer bicycle program for high-visibility, and the Neighborhood Advisory Network Program. Programs at local schools include: the Drug Abuse Resistance Education (D.A.R.E.) Program (provided for Grades 2, 4 and 6), as well as Police Explorer Scouts and School Resource Officers (at area High Schools).

The average emergency response time for the City's Police Department is 4 minutes and 20 seconds for priority calls (from the time the responding unit is dispatched). In comparison, the Orange County Sheriff's Department's estimated average emergency response time is 7.8 minutes or less for priority calls (from the time the dispatcher answers the call).

Criminal Activity

Part I crime (i.e., homicide, rape, felony and misdemeanor assault, robbery, burglaries, larceny/theft, and automobile theft) has been steadily declining in Garden Grove since 1990. Part II crime (i.e., narcotics violations, vandalism, sex crimes which do not include forcible rape, and other lesser crimes) increased steadily from 1989 to 1992, and then decreased in 1993. Garden Grove had the sixth highest number of violent crimes, the eighth highest number of property crimes, and was ranked seventh in overall crime per thousand population, among the 31 Orange County cities in 1993. (It should be noted that Garden Grove is the fourth largest City in Orange County.)

Additional information can be found in Section 3.12.3, Police, in the Existing Conditions Report.

4.2 FIRE PROTECTION

Garden Grove Fire Department

The City of Garden Grove Fire Department provides fire protection services to the entire City. The City of Garden Grove maintains a comprehensive Automatic Aid Agreement for fire protection services with contiguous Cities, except for the City of Westminster. The City is also a signatory to the

California Mutual Aid Fire Protection System. These mutual aid agreements enhance and support the City's fire department capabilities.

Garden Grove is presently served by 29 firefighters stationed during any 24-hour shift, in seven fire stations. Estimated average response times range between 4.5 and 6.7 minutes, depending on the station and equipment responding. *Exhibit 1, Existing Fire Stations and Fire Hazards*, identifies the locations of fire stations and potential fire hazards in the City.

The Garden Grove Fire Department also provides emergency medical services. All fire stations in the City provide basic life support medical services in the event of an emergency. There are four paramedic units which provide advanced life support medical services in the event of an emergency.

The Garden Grove Fire Department operates at the lowest per capita cost of any large (100,000+ population) city in Orange County, yet has achieved an Insurance Service Organization (ISO) rating of Class 2. Additionally, the City's water system was also given a Class 2 rating. The ISO uses a scale of 1 (best protection or lowest threat) to 10 (least protection or highest threat).

Fire Hazards

Building density, building construction (wood versus fire resistive materials), and wind contribute to the spread of fire in an urban environment. There are numerous structures with wood-shake and composite-type shingles located in various parts of the City. Combined with the potential for rapid spreading during Santa Ana winds, most of the City could be vulnerable to fire under extraordinary circumstances.

The City uses the Uniform Fire Code as the basis for its fire prevention regulations. These regulations specify minimum safety standards for fire flow and water supply, road width and access, and turning radius for fire apparatus. The Department also enforces a fire resistant roofing Ordinance for new development and re-roofing of existing structures.

Additional information can be found in Section 3.12.2, Fire, of the Existing Conditions Report.


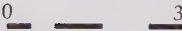

4.3 HAZARDOUS MATERIALS

Proper hazardous waste management is one of the state's most important environmental priorities. When properly handled, hazardous materials will not affect the public. However, if not properly handled or in the event of an accident, hazardous materials may present an unreasonable risk of injury to human health or the environment.

*Average Response Times
Range Between 4.5 and 6.7
Minutes*

*Department Operates at
the lowest Per Capita Cost
of any large City in the
County and has Achieved
One of the Highest ISO
Ratings*

Urban Fires

- 


- 0 _____ 3800'
- GARDEN GROVE
- Robert Bein, William Post & Associates**
 1-95 JN 28912-4163

Existing Fire Stations and Fire Hazards Map

Exhibit 1

*Seven Businesses Handle
Highly Hazardous
Materials in the City*

There are approximately 340 businesses that handle hazardous materials within the City. As of January 1993, seven of these businesses handled acutely, or highly hazardous materials. As shown on *Exhibit 2, Users of Acutely Hazardous Materials and Major Pipelines*, it is most likely that releases of acutely hazardous materials will occur within the Central Industrial District. In addition, hazardous materials stored in warehouses or in refineries outside the City have the potential of being released as toxic fumes during an earthquake or fire.

*Reports of Underground
Storage Tank Leaks*

There are several crude oil and petroleum product pipelines that transect the City in a north-south direction, along Knott Avenue. Although a release of crude oil and/or refined petroleum product would not pose an immediate threat to City residents as would a toxic cloud, the long-term environmental impacts of such an incident may be serious and costly, requiring soils and/or groundwater clean-up or remediation.

*Hazardous Material
Release Incidents
Response*

As of 1992, at least 89 underground storage tank leaks had been reported in Garden Grove. Of these, approximately 35 cases impacted the local groundwater, while 54 reportedly impacted the surrounding soil only.

*Closed and Inactive
Landfills*

The Garden Grove Fire Department is responsible for responding to hazardous material release incidents in Garden Grove. The Fire Department is a member of a Joint Powers Authority with the City of Anaheim for major occurrences.

*No Federal Superfund
Sites Within the City*

There is one landfill in Garden Grove that has been closed and inactive since 1960. This landfill was near the corner of Harbor Boulevard and Chapman Avenue. The landfill was originally a sand borrow pit that was later infilled with mixed municipal waste.

The 1988 Federal Comprehensive Environmental Response, Compensation and Liability Act Information System (CERCLIS) list of potentially hazardous waste sites included four sites within the City that were investigated by the Federal EPA. Based on preliminary assessments of these sites, the EPA concluded that no further action was required for these properties. Neither these nor any other sites are listed in the Federal National Priorities List (NPL) as Federal Superfund sites.

Household Hazardous Waste Element

Adopted in March, 1992, the Household Hazardous Waste Element describes existing and future programs to reduce household hazardous waste. Goals and objectives have been established by the County and supported by the City in this Element, including:



Source: Leighton & Associates

Users of Acutely Hazardous Materials and Major Pipelines

- Providing a means for Orange County residents to safely dispose of household hazardous waste by developing a plan for implementing additional waste collection facilities and expanding current collection facilities and practices.
- Increasing the percentage of collected household hazardous waste that is recycled or reused.
- Decreasing the amount of household hazardous waste by continuing to use public education programs.
- Monitoring and remaining current on regulatory requirements and participating in improving household hazardous waste management methods.
- Eliminating or significantly reducing disposal of household hazardous waste in Orange County's solid waste landfills.

Additional information can be found in Section 3.14, Hazardous Materials, of the Existing Conditions Report.

4.4 SEISMIC HAZARD POTENTIAL

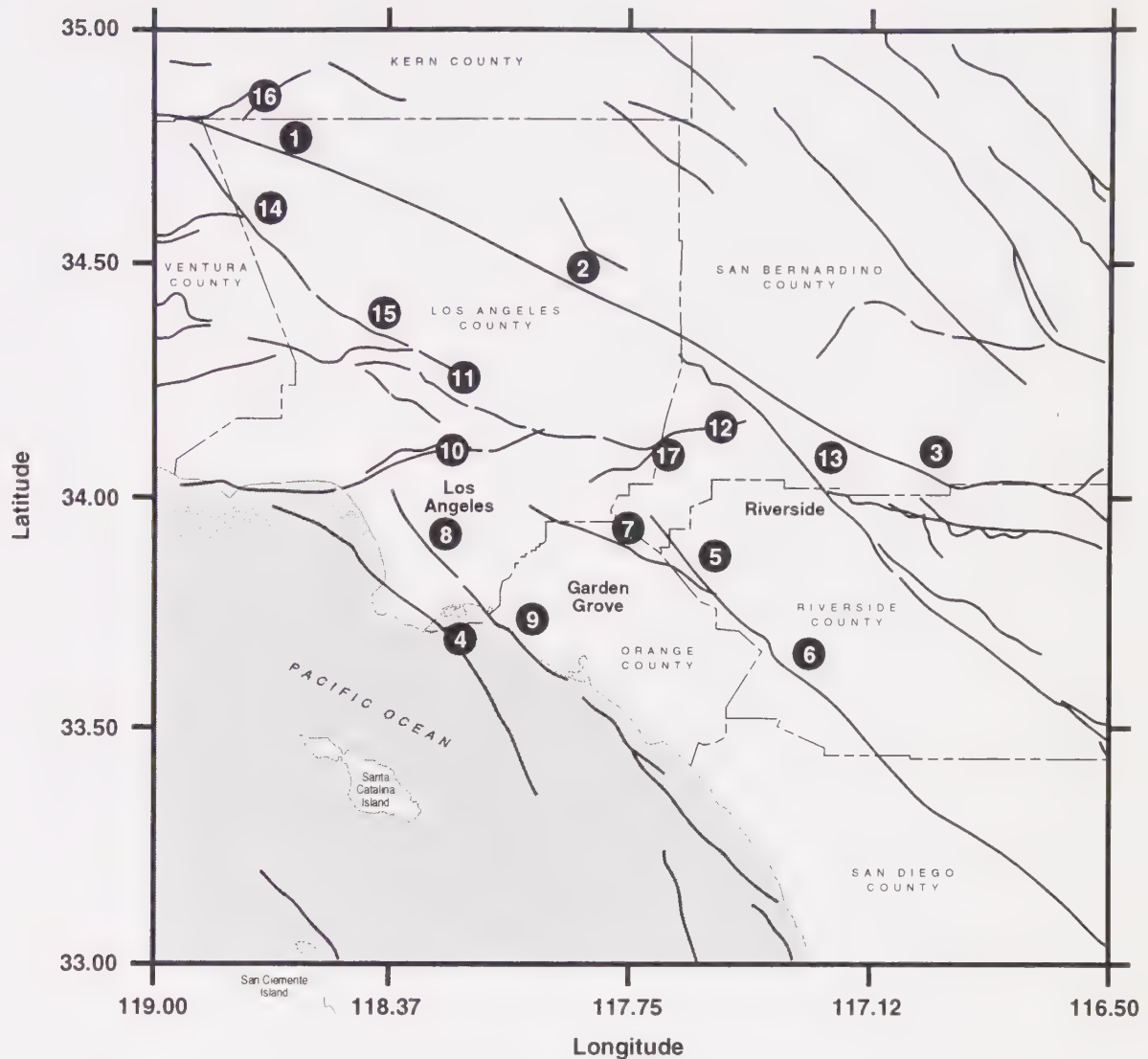
Southern California is one of the most seismically-active regions of the world, experiencing, on average, an earthquake of Magnitude 4 or greater every four years. Although the City is not within an Alquist-Priolo Special Study Zone and no active faults are known to occur under Garden Grove, there are known fault splays beneath the City and the City is at risk from strong ground motion from a number of nearby seismically active faults. *Exhibit 3, Selected Active and Potentially Active Faults in Southern California*, and *Exhibit 4, Fault Splays of the Pelican Hill Fault Zone*, show the locations of faults and fault splays (i.e., one of a series of minor faults at the end of a major fault) which could affect the City of Garden Grove.

Potential damage to new and most existing development is predicted to be low to moderate, although localized severe damage to vulnerable buildings cannot be precluded. Given the risk, critical facilities must be designed and maintained with a greater margin of safety. Earthquakes can also trigger a variety of secondary hazards, including dam failure with resultant inundation of downstream areas, releases of hazardous substances from improperly stored and toppled containers, and structural fires.

The City of Garden Grove is underlain by a thick sequence of alluvial sediments deposited by an ancestral Santa Ana River. This alluvium is susceptible to liquefaction (weakened soils which are no longer capable of supporting structures) and dynamic settlement (non-uniform settlement

Like Virtually all of Southern California, Garden Grove is at Risk from Strong Ground Motion from Faults

Much of the City is Susceptible to Liquefaction and/or Dynamic Settlement



FAULTS

- | | |
|--|--|
| 1 San Andreas (Carrizo) | 10 Santa Monica |
| 2 San Andreas (Mojave) | 11 Sierra Madre - B |
| 3 San Andreas (San Bernardino Mountains) | 12 Cucamonga |
| 4 Palos Verdes | 13 San Jacinto (Lytle Creek - Claremont) |
| 5 Chino | 14 San Gabriel - A |
| 6 Elsinore - A | 15 San Gabriel - B |
| 7 Whittier | 16 Garlock |
| 8 Newport Inglewood - B | 17 San Jose |
| 9 Newport Inglewood - A | |



0 30 miles



GARDEN GROVE

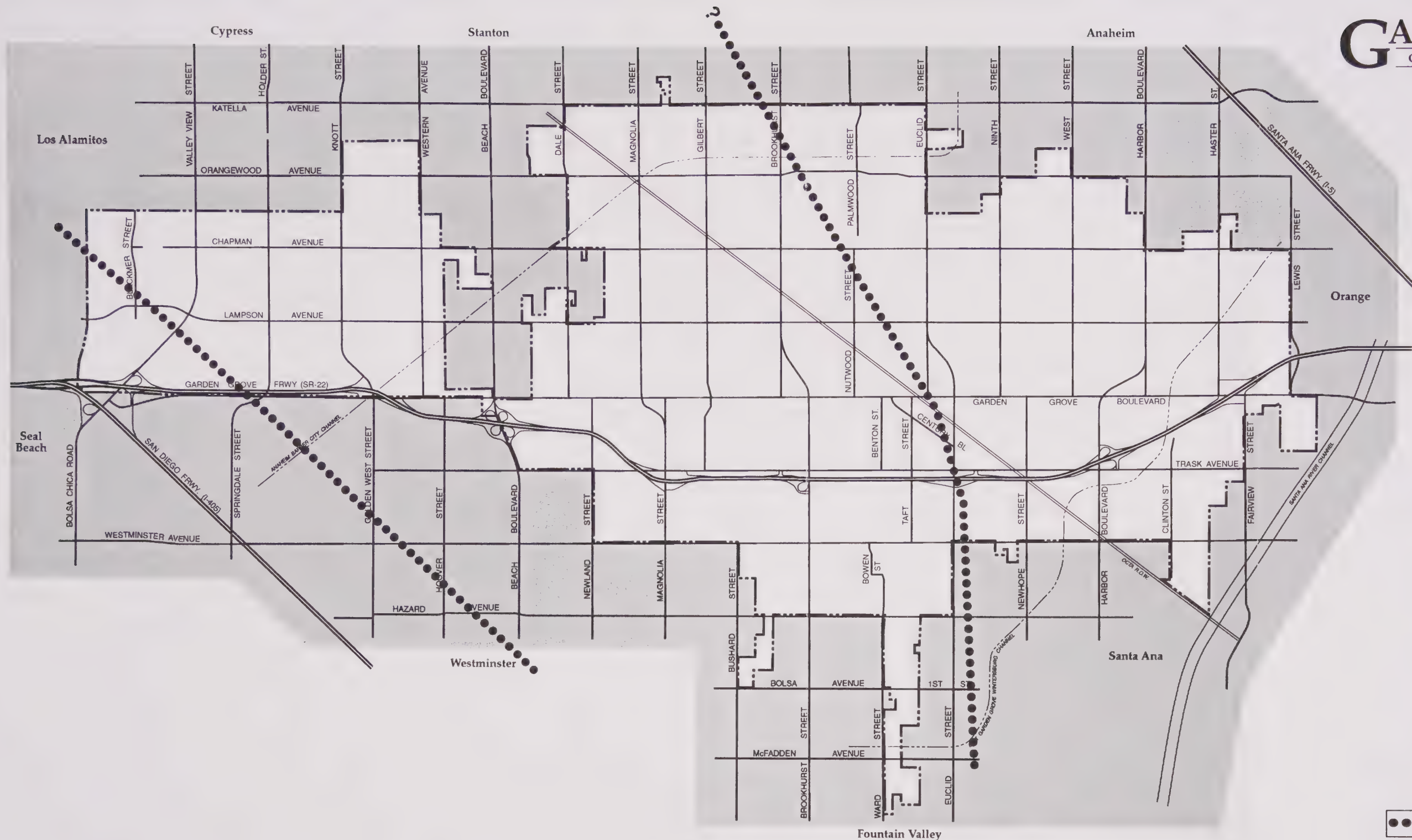
Selected Active & Potentially Active Faults in Southern California



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Exhibit 3

GARDEN GROVE GENERAL PLAN




 Approximate Location of Pelican Hill Fault Splays (Buried)

Source: Leighton & Associates
Morton and Miller, 1981

Fault Splays of the Pelican Hill Fault Zone

Exhibit 4

*Approximately One-Third
of the City Would be
Flooded During a 100-s
ear Storm*

*Potential Flooding From
Prado and Carbon Canyon
Dams*

of the ground), as shown on *Exhibit 5, Liquefaction Susceptibility Map* and *Exhibit 6, Dynamic Settlement Map*.

A major earthquake poses the greatest challenge to the City's emergency response organization resulting from the simultaneous occurrence of multiple incidents that can quickly overwhelm the emergency relief agencies of the area. It should be noted that water wells and imported water connections could fail in a major earthquake. Improved public awareness of earthquake preparedness and the formation of community self-help groups to handle immediate emergency needs after a disaster are important in addressing earthquake preparedness issues.

Additional information can be found in Section 3.5 and 3.12.7, Earth Resources, of the Existing Conditions Report.

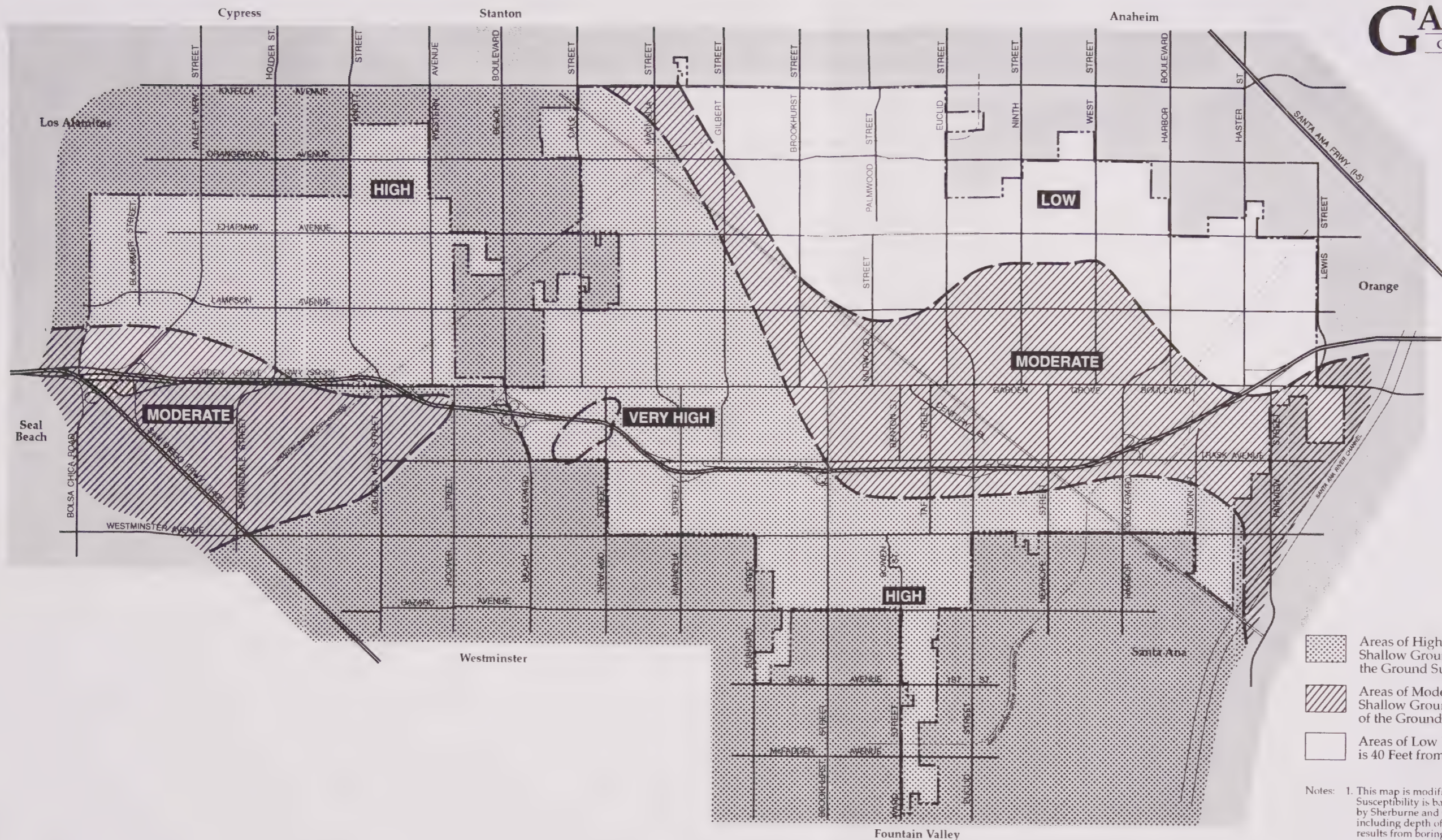
4.5 FLOOD HAZARD POTENTIAL

Based on Federal Emergency Management Agency (FEMA) floodplain mapping for the Santa Ana River watershed, it is anticipated that the eastern third of the City would be flooded during a 100-year storm event. Additional studies in 1988 indicated that a greater area of the City would be flooded by a 100-year storm event compared to the FEMA results. The limits of the 100-year storm for both studies are shown on *Exhibit 7, Flood Hazard*. It should be noted that according to FEMA, the entire City would be flooded during a 500-year flood event.

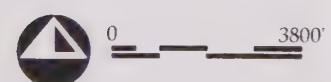
Areas outside the 100-year storm limits may also flood due to poor storm drainage, as discussed in the Circulation and Infrastructure Element. Flood risk in Garden Grove will remain high until several portions of the storm drain system are improved. Long-term planning for drainage devices is necessary to control runoff and prevent local ponding.

The City of Garden Grove is subject to potential flooding from Prado Dam, and to a lesser degree, the Carbon Canyon Dam. The potential flood inundation areas for Prado Dam and Carbon Canyon are shown on *Exhibit 8, Inundation Hazard Map for Carbon Canyon and Prado Dams*.




Of the structures mentioned above, Prado Dam would cause the greatest amount of damage to the City, since the entire City could be flooded if Prado Dam overflowed. Because of this, the City of Garden Grove has prepared contingency plans and response checklists for failure of Prado Dam. If Carbon Canyon Dam failed, the very westerly end of the City would be flooded by one to two feet of water. The City of Garden Grove Emergency Plan includes evacuation routes for residents if either Carbon Canyon or Prado Dam fails.



Source: Leighton & Associates
Sherburne and Others, 1981.



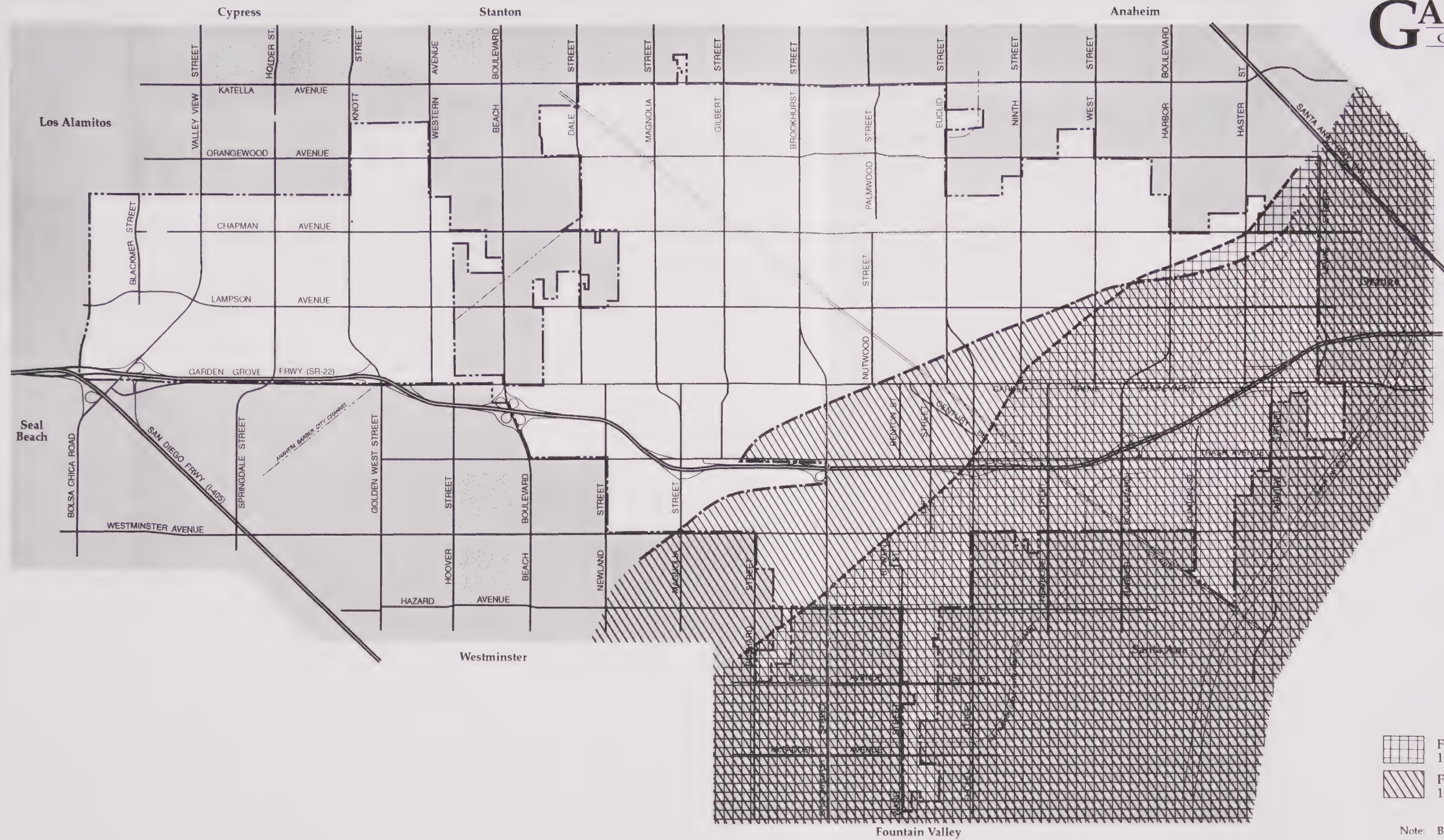




-  Areas of High Dynamic Settlement Potential
-  Areas of Moderate Dynamic Settlement Potential
-  Areas of Low Dynamic Settlement Potential

- Notes:
1. This map is modified from Sherburne and Others (1981). According to Sherburne and Others, the map is a composite of Regional Ground Water Maps and the thickness of underlying Holocene sediments.
 2. This map represents a regional interpretation of areas susceptible to dynamic settlement and should be used for general land use planning purposes only. Site-specific settlement studies should be conducted for development purposes.
 3. Boundaries of dynamic settlement are approximate

Source: Leighton & Associates.
Sherburne and Others, 1981.

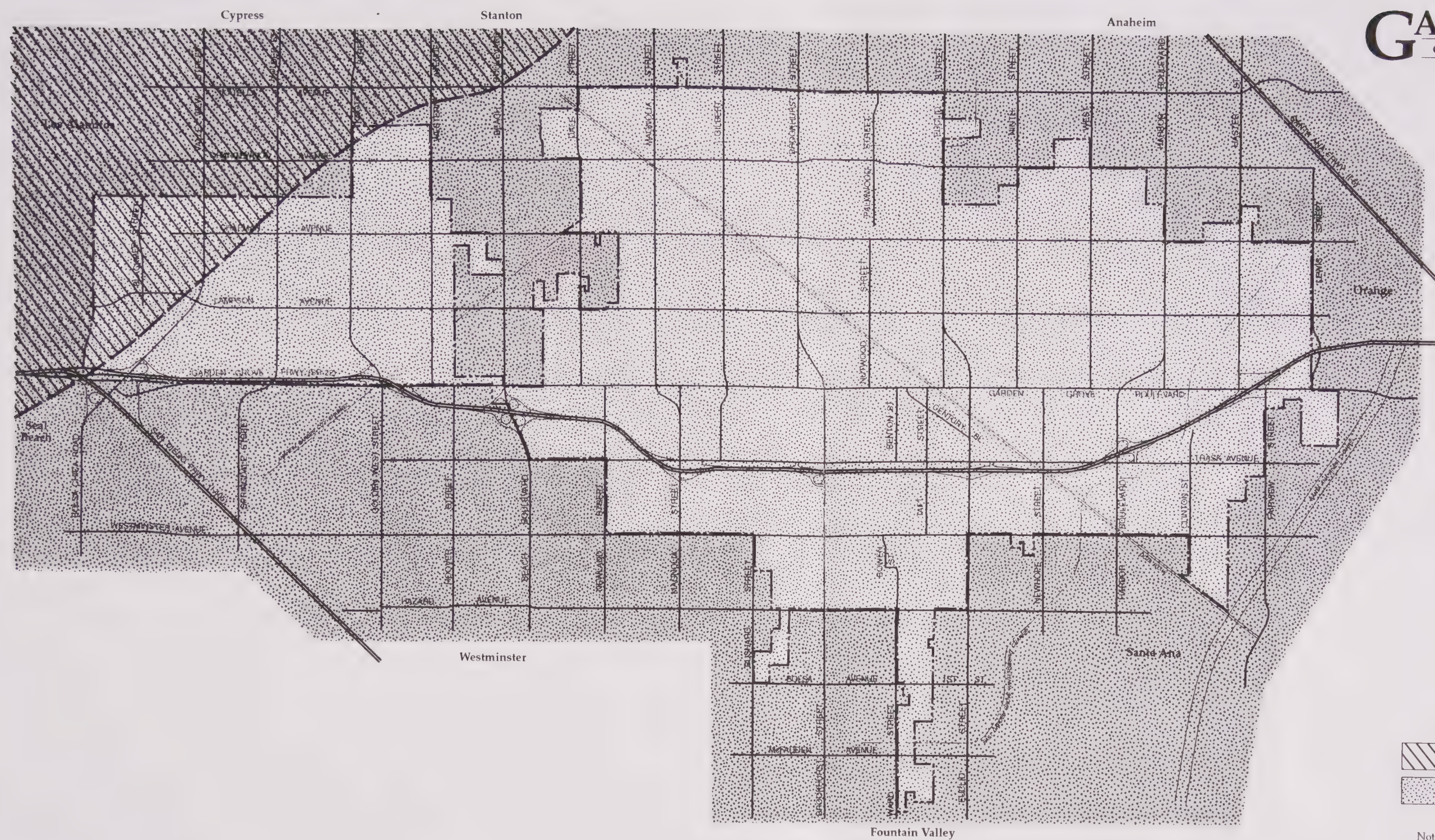






-  Flood Hazard Areas Inundated by 100 Year Flood (FEMA)
-  Flood Hazard Areas Inundated by 100 Year Flood (Williamson and Schmid)

Note: Boundaries of Flood Inundation Areas are approximate.

Source: Leighton & Associates
FEMA, 1989, Flood Insurance Rate Maps
Williamson and Schmid, 1988.



-  Flooded Area Following Catastrophic Breach of Carbon Canyon Dam
-  Flooded Area Following Catastrophic Breach of Prado Dam

Note: Boundaries of Inundation Areas are approximate

Source: Leighton & Associates
 United States Army, Corp of Engineers,
 1985 (Carbon Canyon Dam)
 Orange County Environmental Management
 Agency, no date (Prado Dam)

*The EOCs at Fire
Department Headquarters
and the Municipal Service
Center Coordinate
Emergency Response in the
Event of Disaster*

*Crime is the Primary Safety
Concern of Residents*

Additional information can be found in Sections 3.6.2 and 3.13.3, Flood Hazard Potential and Storm Drainage, respectively, of the Existing Conditions Report.

4.6 EMERGENCY PREPAREDNESS

The City of Garden Grove's Emergency Plan has been designed to provide the basis for the City's disaster planning. When a major emergency or disaster strikes, the Emergency Operations Centers (EOCs), located at the new City Hall, Fire Department headquarters in the Public Safety Building and the Municipal Service Center facilitate a coordinated response with the Director of Emergency Services, emergency management staff and representatives from organizations who are assigned emergency management responsibilities.

The Garden Grove Emergency Management System is structured to provide a response to large and small scale disasters, including natural, technological, and war-related incidents. The system is composed of City and local personnel. Overall direction of the system is under the Emergency Services Director, designated as the City Manager. The Emergency Operations Center Director is the Assistant City Manager, who is responsible for the management of the EOC, coordinating departments, allocating resources, evaluating damage information, and briefing the Emergency Services Director.

Additional information can be found in Section 3.12.7, Emergency Preparedness, of the Existing Conditions Report.

5. GOALS AND POLICIES

ISSUE

Crime is the primary safety concern of the residents of Garden Grove. Criminal activities are particularly evident near apartment complexes, parks, commercial areas and schools. The City of Garden Grove's Police Department is the agency in charge of reducing this hazard. However, organized community groups can support and complement police activities, while developing a sense of pride and commitment to their community.

GOAL

1. A safe and secure environment for Garden Grove residents, visitors and businesses.

POLICIES

The City should:

- 1.1 Continue to support the Community Policing Strategy, established by the Garden Grove Police Department.
- 1.2 Continue to promote and enhance the Police Department's public participation programs.
- 1.3 Continue to build community confidence in neighborhood police personnel.
- 1.4 Encourage means to provide police surveillance and access throughout the City.
- 1.5 Encourage the use of defensible space design in all areas of the City.
- 1.6 Develop, where necessary and feasible, a permit parking program for on-street parking in high crime residential neighborhoods.
- 1.7 Implement those goals and policies found in the Land Use and Community Design Elements which relate to the OCTA right-of-way in order to reduce crime in this area.
- 1.8 Use Conditional Use Permits, Planned Unit Development approvals and other applicable land use mechanisms to assist the Police Department in reducing criminal activities.
- 1.9 Continue the practice of locating sub-stations in those areas of the City particularly vulnerable to crime.
- 1.10 Continue to strictly enforce the California Motor Vehicle Code and local speed limits, particularly in the areas near schools and off-ramps from the Garden Grove Freeway.
- 1.11 Ensure appropriate signage and street markings at crosswalks for pedestrian safety.
- 1.12 Ensure that Federal Aviation Administration FAR Part 77 regulations for Los Alamitos Air Base are adhered to in the City.

Related goals and policies are found in the Land Use, Community Design and Growth Management Elements.

ISSUE

Street gangs have become a common element in many southern California neighborhoods. Some gang members participate in violent, criminal and/or

Youth Violence

socially disruptive activities, resulting in injury or death, disrupted neighborhoods, damaged public and private property, and taxed police and medical resources. The Garden Grove Police Department is conducting several youth programs which have proven effective in diminishing gang-related crime, but complete success must rely on the cooperation and support of the community.

GOAL

2. Reduction, to the greatest extent possible, of the number of violent or criminal acts perpetrated, with specific emphasis on youth.

POLICIES

The City should:

- 2.1 Continue the implementation of a comprehensive Youth Violence Reduction Program incorporating education, intervention, and enforcement strategies.
- 2.2 Continue to take a “zero tolerance” approach to gangs and gang activity in Garden Grove.
- 2.3 Continue to support immediate, positive consequences for minor criminal behavior by youth, such as the graffiti removal program, restitution programs and other effective acceptable programs.
- 2.4 Continue to encourage and promote jobs programs for youth in both the public and private sector in order to help reduce crime.

Related goals and policies are found in the Community Design and Parks, Recreation, and Cultural Activities Elements.

ISSUE

In 1991, the Garden Grove Fire Department responded to an average of 62 fire emergencies per month. While this figure highlights the frequency of danger from fire, it does not reveal associated risks. Fires in commercial and industrial areas can result in release of hazardous toxic substances, fires in high occupancy apartment and high rise office structures offer special safety problems, and fires spread by “branding,” wind driven embers, can threaten whole neighborhoods where roofing materials are not fire resistant.

In addition to protecting the public from fires, the Garden Grove Fire Department also responds to medical emergencies with its Paramedic units; 60% of Fire Department activity is in paramedical services. Continuing the high level of service offered by the Fire Department will be a challenge

*Fire and Health
Emergencies*

without significant increases in local revenues, and an impossibility without the cooperation and support of the public.

GOAL

3. Minimal public hazard from fire and health emergencies.

POLICIES

The City should:

- 3.1 Continue to develop and enforce construction and design standards to diminish risk from fire.
- 3.2 Continue to enforce current regulations which relate to safety from fire, particularly in critical and high occupancy facilities.
- 3.3 Continue to develop and conduct public education and awareness programs which promote self-administered fire prevention and safety.
- 3.4 Continue the Water Services Department's maintenance program dedicated to maintaining the quality of the City's water storage and distribution system, as well as increase water supply capacity.
- 3.5 Continue to explore those cost-saving opportunities which will not impact the Fire Department's ability to serve the community.
- 3.6 Continue to participate in cooperative agreements with the County and appropriate cities to provide special services in an effective manner, and continue to explore opportunities to expand the programs provided through these agreements.
- 3.7 Continue the advanced life support (paramedic) services and procedures which have enhanced the public health and safety in Garden Grove, and expand where cost effective and efficient.
- 3.8 Require street addresses on commercial buildings to more readily facilitate emergency response.

Related goals and policies are found in the Growth Management Element.

ISSUE

Over 300 businesses in the City use, store or manufacture hazardous or extremely hazardous materials. Six of the seven businesses that use extremely hazardous materials are located in the Central Industrial District; the seventh business is located on Nautilus Drive. Hazardous materials are also transported across the City's highways, streets and railways. The City is also transected by several pipeline distribution systems, including pipes carrying petroleum products.

Hazardous Materials

The City of Garden Grove Fire Department is responsible for responding to hazardous materials release incidents in the City, with support provided by the hazardous materials response units of the Joint Powers Authority.

GOAL

4. Minimize the threat to the public health and safety and to the environment posed by a release of hazardous materials.

POLICIES

The City should:

- 4.1 Strictly enforce federal, state and local laws and regulations relating to the use, storage, and transportation of toxic, explosive, and other hazardous and extremely hazardous materials to prevent unauthorized discharges.
- 4.2 Develop an educational awareness program which encourages proper residential management of hazardous materials.
- 4.3 Continue to implement the goals, policies and programs identified in the City's Household Hazardous Waste Element.

Related goals and policies are found in the Land Use Element.

ISSUE

Structural damage to buildings and infrastructure can be expected to occur as a result of a moderate to large earthquake in the area. Many of the buildings in Garden Grove were built in the 1940's and 1950's, prior to the adoption of modern building codes which emphasize more earthquake resistant building techniques. Non-structural damage (e.g. toppled furniture, book shelves and office equipment), is generally the largest source of injury and economic loss as a result of an earthquake.

The central and western two-thirds of the City of Garden Grove have a moderate to high susceptibility to liquefaction during an earthquake. Ground water in these areas occurs within thirty feet of the ground surface. A large portion of the City is also susceptible to dynamic settlement of the underlying soils during an earthquake. These earthquake-induced types of ground failure can result in extensive structural damage to buildings and infrastructure.

GOAL

5. Minimize the risk of injury, loss of life, and property damage caused by earthquake hazards.

POLICIES

The City should:

- 5.1 Promote seismic safety in new and existing buildings and structures.
- 5.2 Educate residents in earthquake safety at home.
- 5.3 Where mandated or practical, require site specific dynamic settlement studies for significant development projects proposed within the high dynamic settlement susceptibility zone. Require mitigation of the hazard of dynamic settlement to the satisfaction of the responsible agencies.
- 5.4 Educate the public in self-sufficiency practices necessary after a major earthquake (e.g., alternative water sources, food storage, first aid, family disaster plans and the like).
- 5.5 Identify locations where information is available to the public for planning self-sufficiency.
- 5.6 Examine the potential to create a commercial loan program to subsidize the cost of retro-fitting buildings to meet seismic safety regulations.

ISSUE

Flood Hazard Potential

In the event of dam failure, Garden Grove may be subject to flooding from Prado Dam and, to a lesser degree, from Carbon Canyon Dam. Storm flooding poses an even greater hazard, according to the Federal Emergency Management Agency (FEMA), the eastern third of the City would be flooded under five to ten feet of water during a 100-year storm event. The entire City would be flooded during a 500-year storm event.

Many of the City's critical facilities, including the Emergency Operation Centers (EOCs) and the Garden Grove Medical Center, are located within the 100-year flood inundation zone. In addition, the City's storm drain system is in need of improvements, as evidenced by localized flooding which occurs along many of the City's streets during rainstorms.

GOAL

- 6. Minimal injury and loss of life, damage to public and private property and infrastructure, and economic and social disruption caused by inundation and flood hazards.

POLICIES

The City should:

- 6.1 Improve defensive measures against 100-year flood conditions.
- 6.2 Maintain and improve levels of storm drainage service.
- 6.3 Continue to monitor flood hazard improvements by FEMA in the Santa Ana River Basin area in order to reduce areas that may be affected by 100 year storms.

Related goals and policies are found in the Growth Management Element.

ISSUE

Emergency response, disaster preparedness and disaster recovery benefits are best planned for, or based on, an assessment of hazards, identification of resources available to handle short-term response, and the development of procedures and a chain-of-command to be followed during the recovery stage. Earthquakes pose one of the greatest challenges because they occur with little or no warning, and can set into motion a number of other disasters, including widespread fire, releases of hazardous materials, and disruption of utility services. The City of Garden Grove has a detailed Emergency Plan which: provides the basis for the City's emergency planning, identifies the Emergency Operations Centers, and indicates the personnel responsible for managing the emergency operations systems. Self-sufficiency during a disaster should be encouraged to the greatest extent possible at the City, neighborhood, and household levels.

GOAL

- 7. Minimize the effects from natural and urban disasters to reduce, to the extent possible, the social and economic impacts that these may have on the community.

POLICIES

The City should:

- 7.1 Maintain and update as necessary its Disaster Preparedness Plan.
- 7.2 Assist in shelter, relief, and first-aid operations.
- 7.3 Continue and expand the public awareness programs conducted by the Fire Department. To this end, inform the public where the Emergency Operations Centers (EOCs) are located.

7.4 Promote public education programs and seminars on safety.

Related goals and policies are found in the Growth Management Element.

GARDEN GROVE GENERAL PLAN

◆ NOISE

It is the general objective of the City to regulate and control unnecessary, excessive and annoying sounds emanating from uses and activities within the City, and to prohibit such sounds as are detrimental to the public health, welfare and safety of it's residents.

1. INTRODUCTION

The Noise Element of a General Plan is a comprehensive program for including noise control in the planning process. It is a tool for local planners to use in achieving and maintaining compatible land use with environmental noise levels. The Noise Element identifies noise sensitive land uses and noise sources, and defines areas of noise impact for the purpose of developing programs to ensure that Garden Grove residents will be protected from excessive noise intrusion.

Within the City of Garden Grove are a number of transportation-related noise sources including the Garden Grove Freeway, Smart Streets, Major Arterials, Primary and Secondary Arterials, Local Collector roadways, and a railroad line. In addition, the Los Alamitos Naval Reserve Air Base is located immediately to the west of the City; at its closest distance, the Base runway is located approximately 700 feet from the City's western boundary. These sources are the major contributors of noise in Garden Grove. Cost effective strategies to reduce their influence on the community noise environment are an essential part of the Noise Element.

Residential land uses and areas identified as noise sensitive must be protected from excessive noise from non-transportation sources including commercial and construction activities. These impacts are most effectively controlled through the adoption and application of a City Noise Ordinance.

Information relative to the existing and future noise environment within the City of Garden Grove should be integrated into future land use planning decisions. The Element presents the noise environment in order that the City may include noise impact considerations in development programs. Noise and land use compatibility guidelines are presented, as well as noise standards for new developments.

This Noise Element follows the State guidelines in the State Government Code Section 653021(f) and Section 46050.1 of the Health and Safety Code. The Noise Element quantifies the community noise environment in terms of noise exposure contours for both near- and long-term levels of growth and traffic activity. The information contained in this Element will guide the development of land use policies in order to achieve compatibility among land uses and provide baseline levels and noise source identification for local noise ordinance enforcement.

2. AUTHORITY FOR THE ELEMENT

The State of California has mandated that each county and city prepare a Noise Element as part of its General Plan. Section 65302(f) of the

California Government Code specifically requires that a "... noise element shall identify and appraise noise problems in the community. The noise element shall recognize the guidelines established by the Office of Noise Control in the State Department of Health Services and shall analyze and quantify, to the extent practicable, as determined by the legislative body, current and projected noise levels for all of the following sources:

- Highways and freeways.
- Primary arterials and major local streets.
- Passenger and freight on-line railroad operations and ground rapid transit systems.
- Commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflights, jet engine test stands, and all other ground facilities and maintenance functions related to airport operation.
- Local industrial plants, including, but not limited to, railroad classification yards.
- Other ground stationary noise sources identified by local agencies as contributing to the community noise environment.

Noise contours shall be shown for all of the sources and stated in terms of community noise equivalent level (CNEL) or day-night average level (Ldn). The noise contours shall be prepared on the basis of noise monitoring or following generally accepted noise modeling techniques for the various sources identified in paragraphs (1) to (6), inclusive.

The noise contours shall be used as a guide for establishing a pattern of land uses in the land use element that minimizes the exposure of community residents to excessive noise.

The noise element shall include implementation measures and possible solutions that address existing and foreseeable noise problems, if any. The adopted noise element shall serve as a guideline for compliance with the state's noise insulation standards."

3. RELATIONSHIP TO OTHER ELEMENTS

The guiding principle of this Noise Element is to "... regulate and control unnecessary, excessive and annoying sounds emanating from uses and activities within the City, and to prohibit such sounds as are detrimental to the public health, welfare and safety of its residents." While this principle is important, it must be achieved while maintaining internal consistency among, and supporting, the other elements of the General Plan, as required by state

law. The Noise Element relates to the other General Plan Elements in a number of ways:

- The provisions of the Noise Element are reflected in the placement of land uses sensitive to noise so as to protect them from those uses which can be expected to generate noise. Therefore the Land Use and Noise Elements are closely linked.
- A significant relationship exists between the Circulation and Infrastructure Elements, because transportation systems are a major source of noise; the location, capacity and design of these systems often determine the extent of noise impacts on surrounding land uses.
- The Housing Element is indirectly affected by the Noise Element through the Land Use Element. Residences are among the most sensitive land uses. The Noise Element provides guidance relating to location, design considerations for housing, as well as attenuation measures to reduce interior noise levels.
- This Element relates to the Safety Element by prohibiting such sounds which are considered detrimental to the public health, welfare and safety of the City's residents.
- Parks and open space are a means by which noise can be mitigated, therefore the Open Space/Conservation and Parks, Recreation and Cultural Activities Elements closely correlate with the Noise Element.
- The Noise Element relates to the Economic Development Element by recommending fiscally sensitive programs and activities which can be readily assimilated into existing programs.
- The primary focus of the Growth Management and Air Quality Elements is on the circulation system, thereby establishing a close correlation between these Elements with the Noise Element.
- Mitigation, such as noise walls, can have a profound impact on the street scene of a community, therefore design sensitivity is important, as stressed in the Community Design Element.

4. SUMMARY OF FINDINGS

Definition of Noise

Sound is technically described in terms of the loudness (amplitude) of the sound and frequency (pitch) of the sound. The standard unit of

measurement of the loudness of sound is the decibel (dB). Decibels are based on a logarithmic scale. The logarithmic scale provides an expression of exponential increase, whereby an increase of ten decibels represents a tenfold increase in the sound generated, and a twenty decibel increase would be one-hundred times more intense.

Sound levels are generated by a source, thus, their decibel level decreases as the distance from the source increases. Sound dissipates exponentially with the distance from the noise source. For a single point source, sound level drops approximately six decibels for each doubling of distance from the source. If noise is produced by a line source, such as highway traffic or railroad operations, the sound will decrease three decibels for each doubling of distance in a hard-site environment (e.g., an environment with minimal noise attenuation features). Line source noise in an environment which is relatively flat with absorptive surfaces will decrease four and one half decibels for each doubling of distance.

The human ear is not equally sensitive to sound at all frequencies. In order to describe “average noise levels,” the noise measurements are weighted and then added over a specified time period to reflect not only the frequency of the sound, but also its duration, magnitude and time of occurrence. Community noise levels are expressed in terms of “A-weighted” decibel levels, abbreviated dBA. A-weighting is used to approximate the subjective response of the human ear to a broad frequency noise source. Sound levels are adjusted to reflect only those frequencies audible to the human ear.

Effects of Noise on People

Noise has been defined as unwanted sound and it is known to have several adverse effects on humans. From these known effects of noise, criteria have been established to help protect the public health and safety and prevent disruption of certain human activities. This criteria is based on such known effects of noise on people as hearing loss (not a factor with community noise), communication interference, sleep interference, physiological responses and annoyance. The following is a brief discussion of each of these potential effects of noise on people:

Exposure to very loud, impulsive, or sustained noise may cause damage to the inner ear, which could be substantial even before a hearing loss was actually noticed. Hearing loss is, in general, not a concern in community noise problems. The potential for noise-induced hearing loss is more commonly associated with occupational noise exposures in heavy industry or very noisy work environments. Noise levels in neighborhoods, even in very noisy airport environments near major international airports, are rarely sufficiently loud to cause hearing loss.

Hearing Loss

Communication Interference

Communication interference is one of the primary concerns in environmental noise problems. Communication interference includes interference of speech and activities such as watching television. Normal conversational speech is in the range of 60 to 65 dBA and any noise in this range or louder may interfere with speech.

Sleep Interference

Sleep interference is a major noise concern in community noise assessment and of course is most critical during nighttime hours. One of the major annoyances caused by community noise is related to sleep disturbance. Noise can make it difficult to fall asleep, create momentary disturbances of natural sleep patterns by causing shifts from deep to lighter stages and cause awakening. Sick or elderly people are particularly susceptible to noise-induced sleep interference, which can occur when intruding noise levels exceed the typical 33-45 decibel background noise level in bedrooms. Sleep prevention can occur when intruding noise levels exceed 50 dBA.¹

Physiological Responses

Physiological responses are those measurable effects of noise on people which are realized as changes in pulse rate, blood pressure, etc. While such effects can be induced and observed, the extent to which these physiological responses cause harm or are a sign of harm is not known. Generally, physiological responses are a reaction to a loud short-term noise such as a rifle shot or a very loud jet overflight.

Annoyance

Annoyance is the most difficult of all noise responses to describe. Annoyance is a very individual characteristic and can vary widely from person to person. What one person considers tolerable can be quite unbearable to another of equal hearing capability. In addition, the level of annoyance experienced by an individual depends on the characteristics of the noise (i.e., loudness, frequency spectra, time and duration), and how much activity interference (e.g., speech interference and sleep interference) results from the noise. Refer to Table 1, *Sound Levels and Human Responses*, for typical sound thresholds for humans.

Standards for Noise Measurement

Community noise is generally not steady state and varies with time. Under conditions of fluctuating noise levels, some type of statistical metric is necessary in order to quantify noise exposure over a long period of time. Several rating scales have been developed for describing the effects of noise on people. They are designed to account for the above known effects of noise on people.

¹Miller, James, D., "Effects of Noise On People," (Journal of the Acoustical Society of America), Revised April 8, 1974.

TABLE 1
SOUND LEVELS AND HUMAN RESPONSE

Noise Source	dB(A) Noise Level	Response
	150	
Carrier Jet Operation	140	Harmfully Loud
	130	Pain Threshold
Jet Takeoff (200 ft.) Discotheque	120	
Unmuffled Motorcycle Auto Horn (3 ft.) Rock'n Roll Band Riveting Machine	110	Maximum Vocal Effort Physical Discomfort
Loud Power Mower Jet Takeoff (2000 ft.) Garbage Truck	100	Very Annoying Hearing Damage (Steady 8-Hour Exposure)
Heavy Truck (50 ft.) Pneumatic Drill (50 ft.)	90	
Alarm Clock Freight Train (50 ft.) Vacuum Cleaner (10 ft.)	80	Annoying
Freeway Traffic (50 ft.)	70	Telephone Use Difficult
Dishwashers Air Conditioning Unit (20 ft.)	60	Intrusive
Light Auto Traffic (100 ft.)	50	Quiet
Living Room Bedroom	40	
Library Soft Whisper (15 ft.)	30	Very Quiet
Broadcasting Studio	20	
	10	Just Audible
	0	Threshold of Hearing

Equivalent Noise Level (Leq)

Time Weighted Annual Average Noise Level (Ldn)

Community Noise Equivalent Level (CNEL)

State and Federal Guidelines and Standards

Federal Guidelines and Standards

Based on these effects, the observation has been made that the potential for noise to impact people is dependent on the total acoustical energy content of the noise. A number of noise scales have been developed to account for this observation. These scales are the Equivalent Noise Level (LEQ), the Day Night Noise Level (LDN), and the Community Noise Equivalent Level (CNEL). These scales are described below.

The “equivalent noise level” or Leq, is the constant sound level that, over a specified time period, transmits the same amount of acoustic energy as the actual time-varying sound. For example, a variable sound that lasted for one-half hour can be expressed as having a one-hour Leq of x-dBA. Equivalent sound levels are the basis for both the Day-night average sound levels (Ldn) and the Community Noise Equivalent Levels (CNEL).

Day-night average sound levels are a measure of the cumulative noise exposure to the community. The Ldn value results from a summation of hourly Leq’s over a 24-hour time period with an increased weighing factor applied to the nighttime period between 10:00 p.m. and 7:00 a.m. This noise rating scheme takes into account those subjectively more annoying noise events which occur during the normal sleeping hours.

The Community Noise Equivalent Level (CNEL) method is similar to Ldn, except that an additional weighing factor is applied to evening hours between 7:00 p.m. and 10:00 p.m. For the CNEL value an evening adjustment factor is used for each of the evening hours, in addition to the nighttime adjustment factor applied to the Ldn value. The Ldn differs little when compared to the CNEL (typically within one dBA in magnitude). CNEL may be indicated as “dBA CNEL” or just “CNEL.” Examples of CNEL noise levels are presented in Table 2, *Typical Outdoor Noise Levels*.

Land Use Compatibility with Noise

The purpose of this section is to present information regarding the compatibility of various land uses with environmental noise. It is from these guidelines and standards, that the City of Garden Grove Noise Criteria and Standards have been developed. Noise/land use guidelines have been produced by a number of Federal and State agencies including the Federal Highway Administration, the Environmental Protection Agency, the Department of Housing and Urban Development, the American National Standards Institute, and the State of California. These guidelines, presented below, are all based upon cumulative noise criteria such as LEQ, LDN or CNEL.

The United States Noise Control Act of 1972 (NCA) recognizes the role of the federal government in dealing with major commercial noise sources in order to provide for uniform treatment of such sources. The federal

**TABLE 2
TYPICAL OUTDOOR NOISE LEVELS**

CNEL	Outdoor Location
90	
80	Apartment Next to Freeway (87.5 CNEL) 3/4 Mile from Touchdown at Major Airport (86 CNEL)
70	Downtown with some Construction Activity (79 CNEL) Urban High Density Apartment (78 CNEL)
60	Urban Row Housing on Major Avenue (68 CNEL)
50	Old Urban Residential Area (59 CNEL)
40	Agricultural Crop Land (44 CNEL)
30	Rural Residential (39 CNEL) Wilderness Ambient (35 CNEL)

government specifically preempts local control of noise emissions from aircraft, railroad and interstate highways.

The U.S. Environmental Protection Agency (EPA) has identified noise level guidelines in order to protect public health and welfare, allowing for an adequate margin of safety, in establishing noise emission standards for interstate commerce activities.² With respect to noise levels, public health safeguards pertain to prevention of hearing loss and welfare protection applies to minimizing annoyances. Table 3, *Environmental Protection Agency Guidelines*, presents a table of land uses and requisite noise levels. In this table, 55 LDN is described as the requisite level with an adequate margin of safety for areas with outdoor uses, this includes residences, and recreational areas; it should be noted that this does not constitute a standard, specification, or regulation, but identifies safe levels of environmental noise exposure without consideration for economic cost for achieving these levels.

The Federal Highway Administration (FHWA) has adopted and published noise abatement criteria for highway construction projects. The noise abatement criteria specified by the FHWA are presented in Table 4, *FHWA Noise Abatement Criteria*. The FHWA noise abatement criteria, which is specified in terms of the maximum one hour Noise Equivalent Level (Leq), basically establishes an exterior noise goal for residential land uses of 67 LEQ and an interior goal for residences of 52 LEQ. The noise abatement criteria applies to private yard areas and assumes that typical wood frame homes with windows open provide 10 dB noise reduction (outdoor to indoor) and 20 dB noise reduction with windows closed.

The U.S. Department of Housing and Urban Development (HUD) has established policies for granting financial support for the construction of dwelling units in noise impacted areas. Table 5, *HUD External Noise Exposure Standards for New Residential Construction*, shows noise exposure levels used by HUD to determine eligibility for financial backing for new or rehabilitative residential construction in noise impacted areas, in addition to providing special requirements. As indicated in Table 5, financial assistance from HUD would still be possible when noise exposure is between 65 dBA and 75 dBA, if adequate building sound attenuation is provided to achieve appropriate noise reduction.

State Standards

The State of California requires each City and County to adopt a Noise Element as part of their General Plan. Such Noise Elements must contain a noise/land use compatibility matrix. The Office of Noise Control in the State Department of Health Services has developed criteria and guidelines

²Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare With an Adequate Margin of Safety (EPA 550/9-74-004), March, 1974.

TABLE 3
ENVIRONMENTAL PROTECTION AGENCY GUIDELINES

	Measure	Indoor Activity Interferences	Hearing Loss Consideration	To Protect Against Both Effects (b)	Outdoor Activity Interference	Hearing Loss Consideration	To Protect Against Both Effects(b)
Residential with Outside Space and Farm Residences	Ldn	45		45	55		55
	Leq (24)		70			70	
Residential with No Outside Space	Ldn	45		45			
	Leq (24)		70				
Commercial	Leq (24)	(a)	70	70 (c)	(a)	70	70 (c)
Inside Transportation	Leq (24)	(a)	70	(a)			
Industrial	Leq (24)(d)	(a)	70	70 (c)	(a)	70	70 (c)
Hospitals	Ldn	45		45	55		55
	Leq (24)		70			70	
Educational	Ldn	45		45	55		55
	Leq (24)		70			70	
Recreational Areas	Leq (24)	(a)	70	70 (c)	(a)	70	70 (c)
Farm Land and General Unpopulated Land	Leq (24)				(a)	70	70 (c)

Code:

- (a) Since different types of activities appear to be associated with different levels, identification of a maximum level for activity interference may be difficult except in those circumstances where speech communication is a critical activity.
- (b) Based on lowest level.
- (c) Based only on hearing loss.
- (d) An Leq(8) of 75 dB may be identified in these situations so long as the exposure over the remaining 16 hours per day is low enough to result in a negligible contribution to the 24-hour average, i.e., no greater than an Leq of 68 dB.

Note: Explanation of identified level for hearing loss: The exposure period which results in hearing loss at the identified level is a period of 40 years.

TABLE 4
FHWA NOISE ABATEMENT CRITERIA

Activity Category	Design Noise Level - LEQ	Description of Activity Category
A	57 (Exterior)	Tracts of land in which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of open spaces, or historic districts which are dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet.
B	67 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas and parks which are not included in category A and residences, motels, hotels, public meeting rooms, schools, churches, libraries, and hospitals.
C	72 (Exterior)	Developed lands, properties, or activities not included in Category A or B above.
D	-	For requirements of undeveloped lands see FHWA PPM 773.
E	52 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

TABLE 5
HUD EXTERNAL NOISE EXPOSURE STANDARDS
FOR NEW RESIDENTIAL CONSTRUCTION³

HUD Approval	Site Noise Exposure	Noise Level (Ldn)	Special Approval/ Requirements
Standard	Acceptable	Not exceeding 65 dB	None
Discouraged	Normally Acceptable	65 dB to 75 dB	Building sound attenuation of 5 dB for 65-70 dB noise level and 10 dB for 70-75 dB noise level Special Environmental Clearance Approval of Regional Administration
Prohibited	Unacceptable	75 + dB	Approval of Assistant Secretary of Community Planning EIS required

Source: Federal Register v.44 n.125, Thursday, July 12, 1979

³Subsequent to original publication, it has been learned that a later Federal Register listing deleted HUD noise exposure standards for residential rehabilitation.

Local Jurisdictional Standards

for local governments to use when setting standards for human exposure to noise and preparing noise elements. These guidelines are summarized in Table 6, *Land Use Compatibility for Community Noise Environments*. Ultimately, it is the responsibility of each city/county to determine the acceptable noise level threshold in exterior and interior living environments.

The Noise Element for the Garden Grove General Plan, adopted in June, 1975, contains guidelines for land use compatibility with community noise environments, as does the Noise Element for the County of Orange. These guidelines indicate acceptable and unacceptable noise levels for specific land uses. Both the City's and the County's Noise Elements indicate that noise impacted areas are those residential areas exposed to Ldn 65 and greater.

Existing Acoustic Environment

Understanding the nature and location of noise sources within a city is an integral part of adequately assessing its noise environment. Noise within the City of Garden Grove is generated by numerous sources which can be categorized as mobile or stationary sources.

Mobile Noise Sources

The predominant noise sources within the City of Garden Grove are transportation-related mobile sources. These noise sources include automobiles, trucks, buses, motorcycles, trains and aircraft. Generally, noise from these sources is produced by engines, exhaust systems, transmissions, fans, tires (interaction with the road) and air movement.

As is typical of most urbanized areas, the most pervasive noise source in the City of Garden Grove are motor vehicles, including automobiles, trucks, buses and motorcycles. The noise produced by these sources occurs primarily around travelways and may be of sufficient magnitude to expose various land uses to excessive noise levels. As a general observation, the speed of the vehicle is directly correlated to the noise level; an increase in speed causes an increase in noise levels.

In estimating existing roadway noise levels throughout the City, the "Federal Highway Administration (FHWA) Traffic Noise Prediction Model" (FHWA-RD-77-108, December, 1978) prepared by the U.S. Department of Transportation Federal Highway Administration was utilized. The FHWA model arrives at a predicted noise level through a series of adjustments to a reference sound level. Adjustments are made by the model to account for traffic flows, varying distances from the roadway, finite length roadways and shielding. To compute the "equivalent noise level" during typical daytime, evening, and nighttime hours, a series of parameters are input into the model such as average daily traffic volumes, roadway geometry, and vehicle speed and mix for each roadway link analyzed. Weighting these noise levels and

TABLE 6
LAND USE COMPATIBILITY
FOR COMMUNITY NOISE ENVIRONMENTS

LAND USE CATEGORY	COMMUNITY NOISE EXPOSURE			
	L_{dn} or CNEL, dB			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential - Low Density	50 - 60	55 - 70	70 - 75	75 - 85
Residential - Multiple Family	50 - 65	60 - 70	70 - 75	75 - 85
Transient Lodging - Motel, Hotels	50 - 65	60 - 70	70 - 80	80 - 85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 - 70	60 - 70	70 - 80	80 - 85
Auditoriums, Concert Halls, Amphitheaters	NA	50 - 70	NA	65 - 85
Sports Arenas, Outdoor Spectator Sports	NA	50 - 75	NA	70 - 85
Playgrounds, Neighborhood Parks	50 - 70	NA	67.5 - 75	72.5 - 85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 - 75	NA	70 - 80	80 - 85
Office Buildings, Business Commercial and Professional	50 - 70	67.5 - 77.5	75 - 85	NA
Industrial, Manufacturing, Utilities, Agriculture	50 - 75	70 - 80	75 - 85	NA

Source: Guidelines for the Preparation and Content of the Noise Element of the General Plan, California Department of Health Services, February 1976.

Notes: NORMALLY ACCEPTABLE

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

CONDITIONALLY ACCEPTABLE

New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

NORMALLY UNACCEPTABLE

New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

CLEARLY UNACCEPTABLE

New construction or development should generally not be undertaken.

NA: Not applicable.

summing them results in the CNEL for the traffic projections used. CNEL contours are subsequently located through a series of computerized iterations designed to isolate the 60, 65 and 70 CNEL contour locations.

Existing traffic volumes obtained from the County of Orange Traffic Flow (December, 1991) and the City of Garden Grove Circulation Element Existing Setting Profile (prepared by LSA Associates, Inc., February 26, 1993), roadway geometrics and estimated speeds (obtained through empirical observations) were input into the FHWA Model to estimate the distances to the 60, 65 and 70 CNEL. Table 7, *Existing CNEL Range at 100 Feet from Centerline*, provides the distances from the centerline of the roadway to the CNEL contour. It should be noted that the figures presented in Table 7 are for a "soft" site. Additionally, the estimates do not take into account the effect of any existing noise barriers or topography that may affect ambient noise levels. The analysis is intended to provide a general assessment of existing noise levels. Appendix A, outlines additional model assumptions utilized in evaluating traffic concerns, including speed, roadway type and class, and roadway geometrics (right-of-ways, curb-to-curb, centerline separation and median).

As indicated in Table 7, the existing noise levels at 100 feet from the roadway centerline vary from a minimum of 54 CNEL to a maximum of 66 CNEL. As indicated in the Table, the 65 CNEL contour locations vary from 20 feet to 333 feet from the roadway centerline. Along many of these roadway links, the 65 CNEL contour falls within the right-of-way (R.O.W.). However, the majority of the 65 CNEL contours extend beyond the R.O.W.

Several Garden Grove roadways have not been fully improved to their General Plan Circulation Element Roadway Classifications. In an effort to facilitate the planning process and provide general guidelines, typical noise contours of the various roadway classifications have been provided in Exhibits 1, 2, 3 and 4, *Typical Roadway Noise Contours for Major Arterials, Primary Arterials, and Secondary Arterials*. It should be noted that these are general guidelines estimating potential worst-case noise levels and are not intended to supersede site-specific noise assessments.

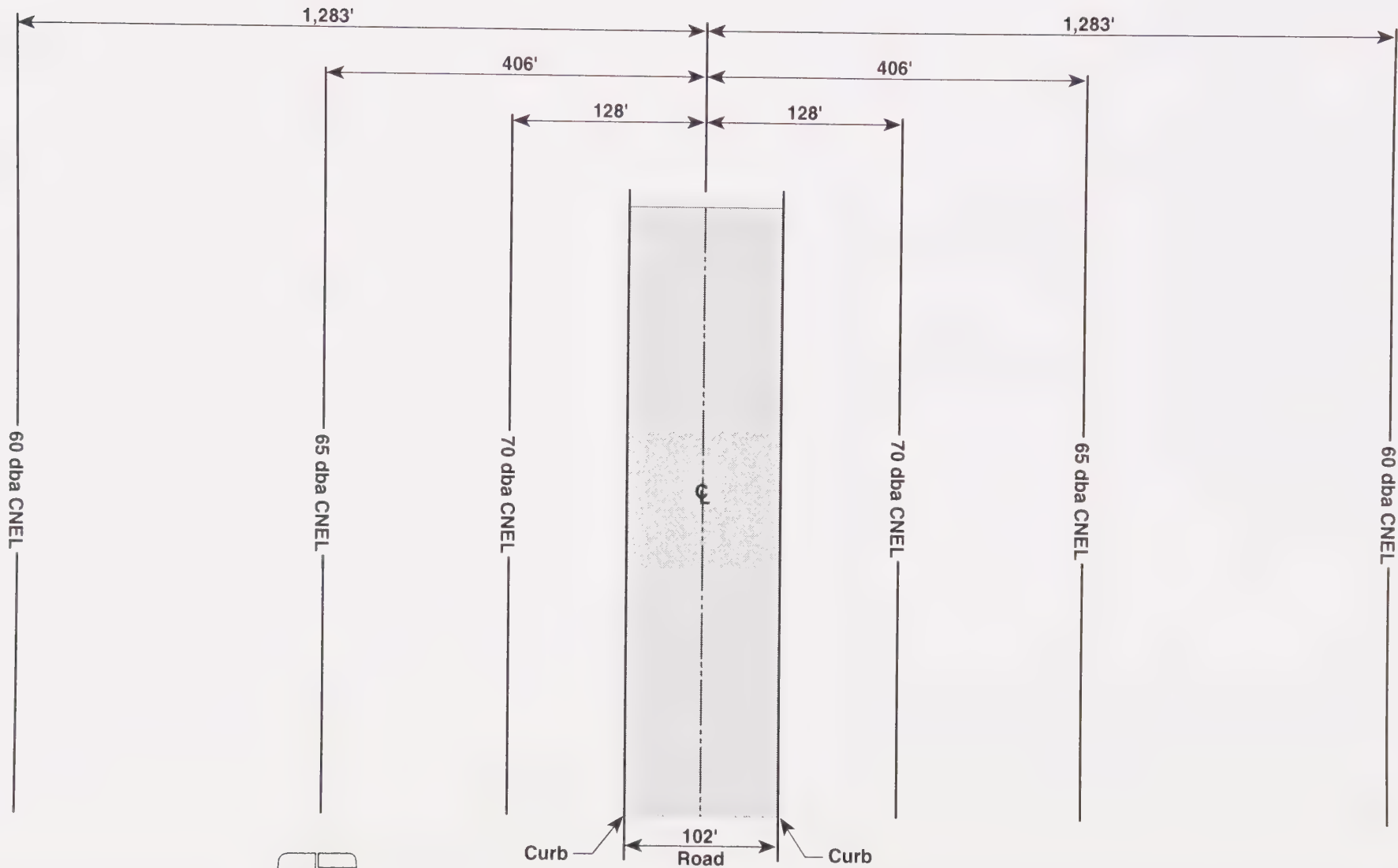
Railroad Noise

The City of Garden Grove is traversed by one in-use railroad line. The Stanton Line of the Southern Pacific Transportation Company bisects the western portion of the City (at the City boundary with City of Stanton) in a north/south direction, approximately 700 feet east of Western Avenue. Several spur lines extend from the Stanton Line into the Central Industrial District.

The Stanton Line is currently used to transport freight (industrial products and materials) to the adjacent Central Industrial District area. A total of two one-way trips occur on the line daily, traveling at speeds of approximately

**TABLE 7
EXISTING CNEL RANGE AT 100 FEET FROM CENTERLINE**

Roadways	CNEL @ 100 feet
Valley View Street	65.7 - 66.2
Springdale Street	58.7 - 60.1
Knott Street	63.9 - 64.7
Western Avenue	61.5 - 62.1
Dale Street	58.8 - 59.8
Newland Street	59.9
Magnolia Street	63.0 - 65.7
Gilbert Street	54.9 - 59.5
Brookhurst Street	64.7 - 66.4
Euclid Street	62.1 - 66.4
Ninth Street	57.2 - 58.3
Newhope Street	61.8
West Street	59.8 - 61.9
Harbor Blvd.	64.5 - 66.5
Haster Street	61.6 - 62.8
Lewis Street	59.5 - 60.6
Katella Avenue	63.3 - 64.4
Orangewood Avenue	56.4 - 59.0
Chapman Avenue	60.5 - 64.1
Lampson Avenue	57.5 - 62.1
Garden Grove Boulevard	62.3 - 64.4
Trask Avenue	58.7 - 64.0
Westminster Avenue	63.7 - 64.7
Hazard Avenue	60.9
Bolsa Avenue	63.8
McFadden Avenue	60.5

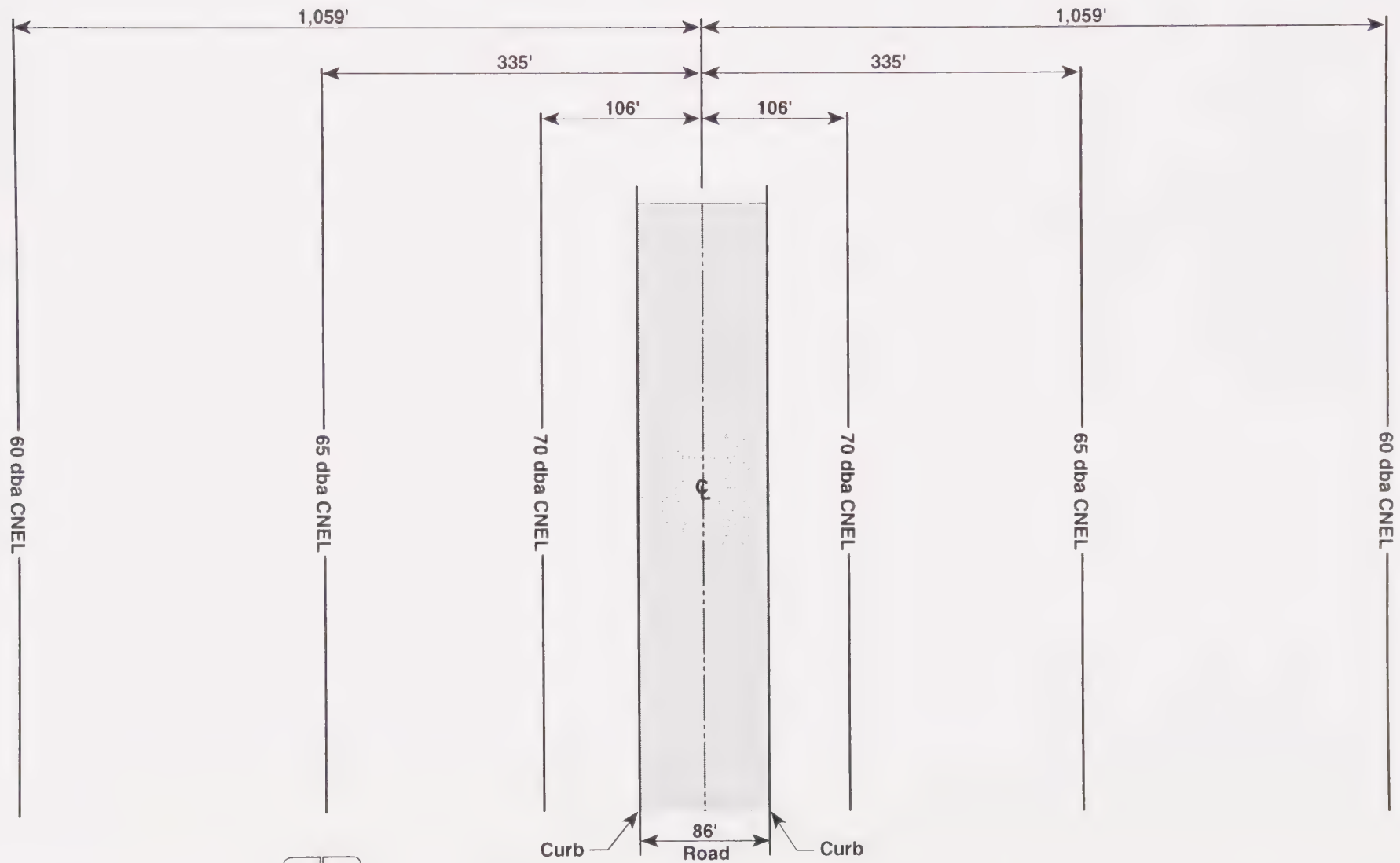


**Typical Roadway Noise Contours
Major Arterial (6-Lane Divided)**

Note: Contours Assume Hardsite
(minimal noise attenuation)

Not to scale

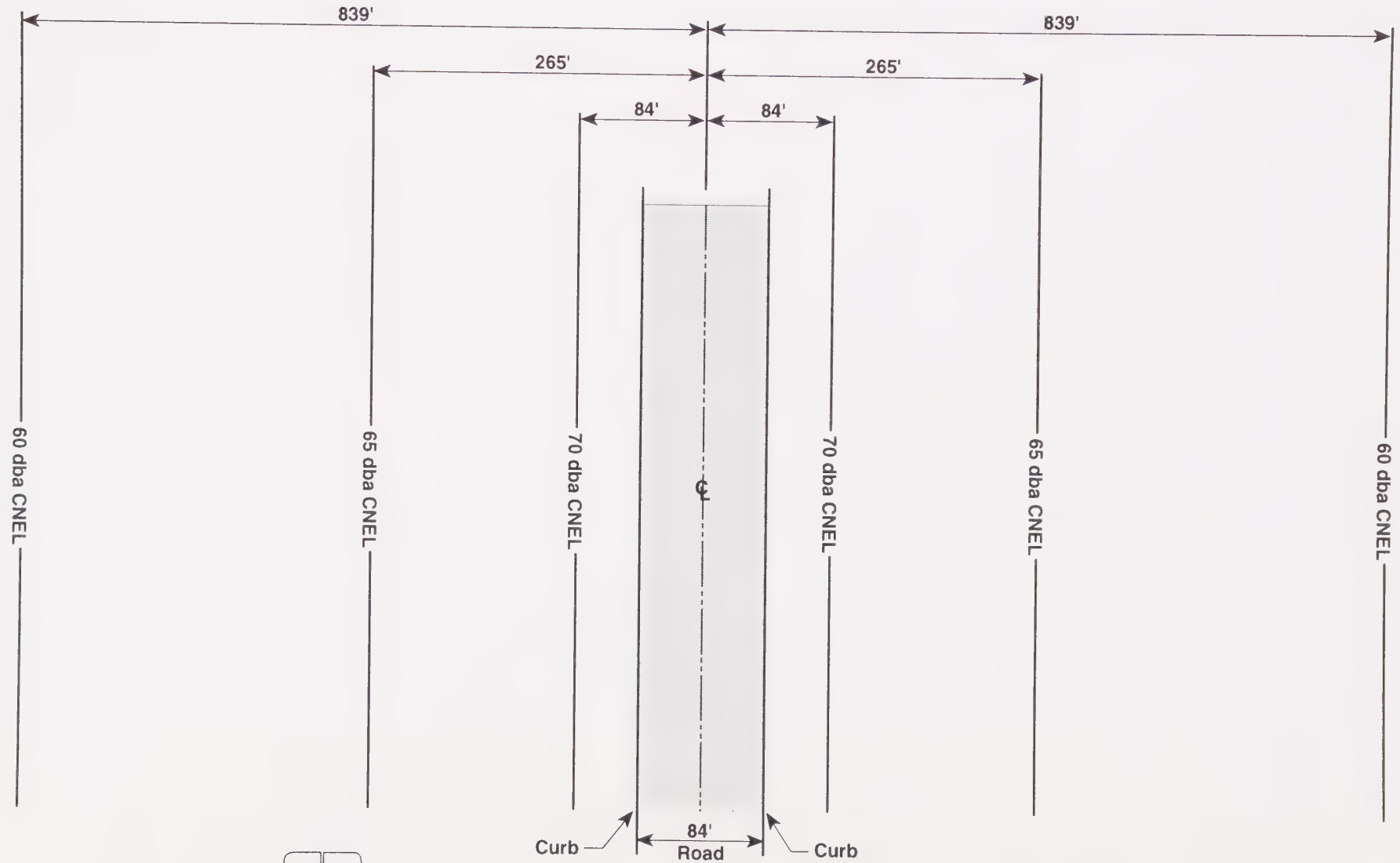




Note: Contours Assume Hardsite
(minimal noise attenuation)
Not to scale



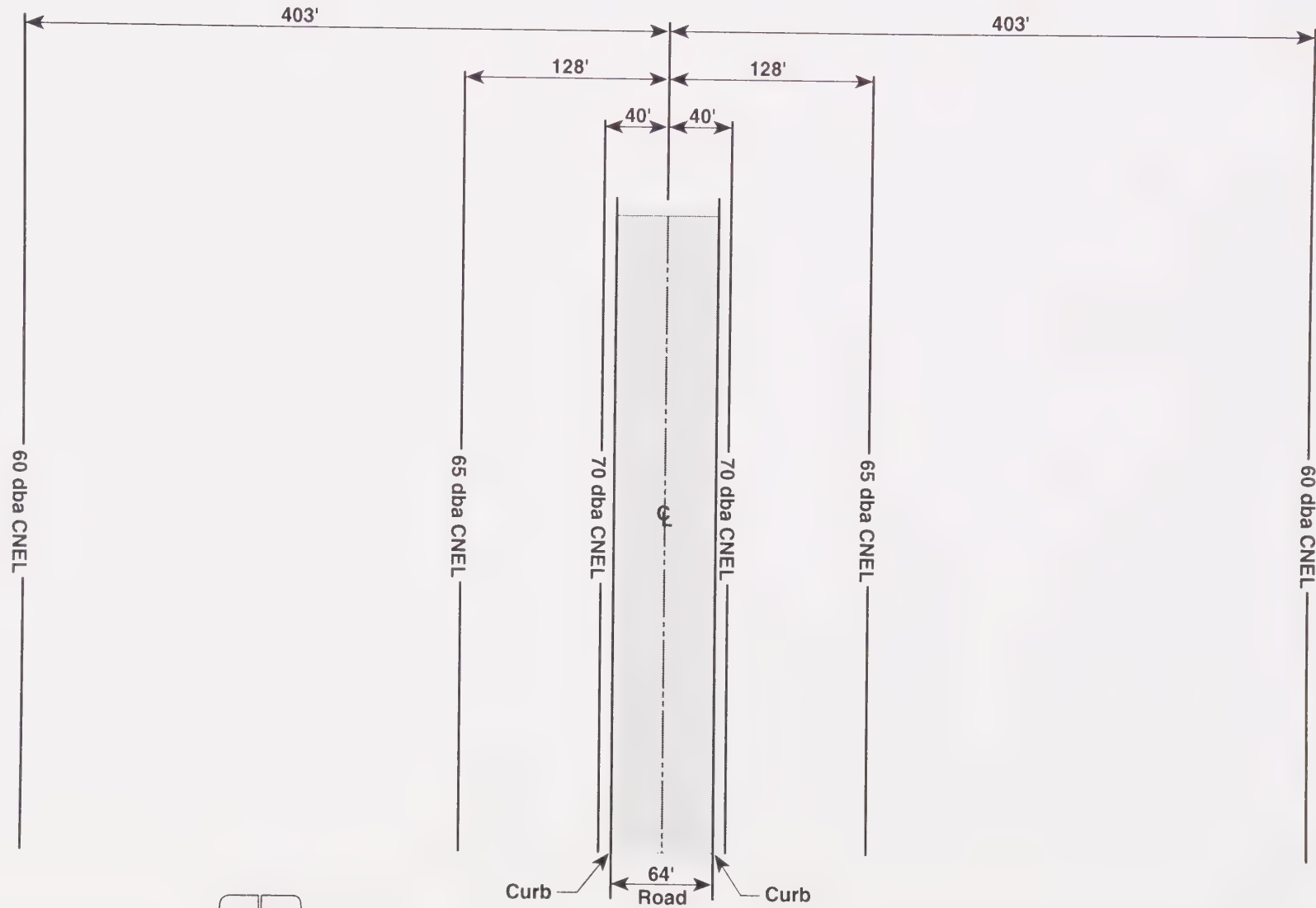
Typical Roadway Noise Contours Modified Major Arterial (6-Lane Divided)



Typical Roadway Noise Contours
Primary Arterial (4-Lane Divided)

Note: Contours Assume Hardsite
(minimal noise attenuation)
Not to scale





Note: Contours Assume Hardsite
(minimal noise attenuation)
Not to scale



Typical Roadway Noise Contours Secondary Arterial (4-Lane Undivided)

Aircraft Noise

25 miles per hour. According to the Southern Pacific Railroad Company, an increase in service is not anticipated in the foreseeable future.⁴

The factors which influence noise levels along railroad tracks include the frequency of pass bys, train length, pass-by duration, speed and time of day. The 65 CNEL contour is estimated at a distance of approximately 425 feet from the centerline of the railway. The nearest Garden Grove residence is situated approximately 600 feet east of the railway and is therefore not experiencing excessive noise levels. However, it should be noted that the residences situated nearest to the railway are within the City of Cypress city limits, approximately 100 feet east of the railway. These residences are presently experiencing excessive noise levels resulting from railroad operations.

The primary source of aircraft noise within the City of Garden Grove is the Naval Reserve Air Base immediately west of the City. At its closest distance, the Base runway is located approximately 700 feet from the City's western boundary. Consequently, portions of the City of Garden Grove are located within the planning area established by the Airport Land Use Commission for Orange County. According to the Airport Environs Land Use Plan (AELUP) CNEL contour map, the 60 and 65 CNEL contours for the Base extend into the City of Garden Grove, as shown on Exhibit 5, *Noise Contours for Los Alamitos Naval Reserve Air Base*. The AELUP identifies the area between the 60 and 65 CNEL contours as Noise Impact Zone "2" (moderate noise impact) and the area up to the 65 CNEL contour as Noise Impact Zone "1" (high noise impact).

It should be noted that the Air Installation Compatible Use Zone (AICUZ) Study Final Report for the Los Alamitos Air Base, prepared in December, 1989, shows slightly different noise contours associated with the Base.

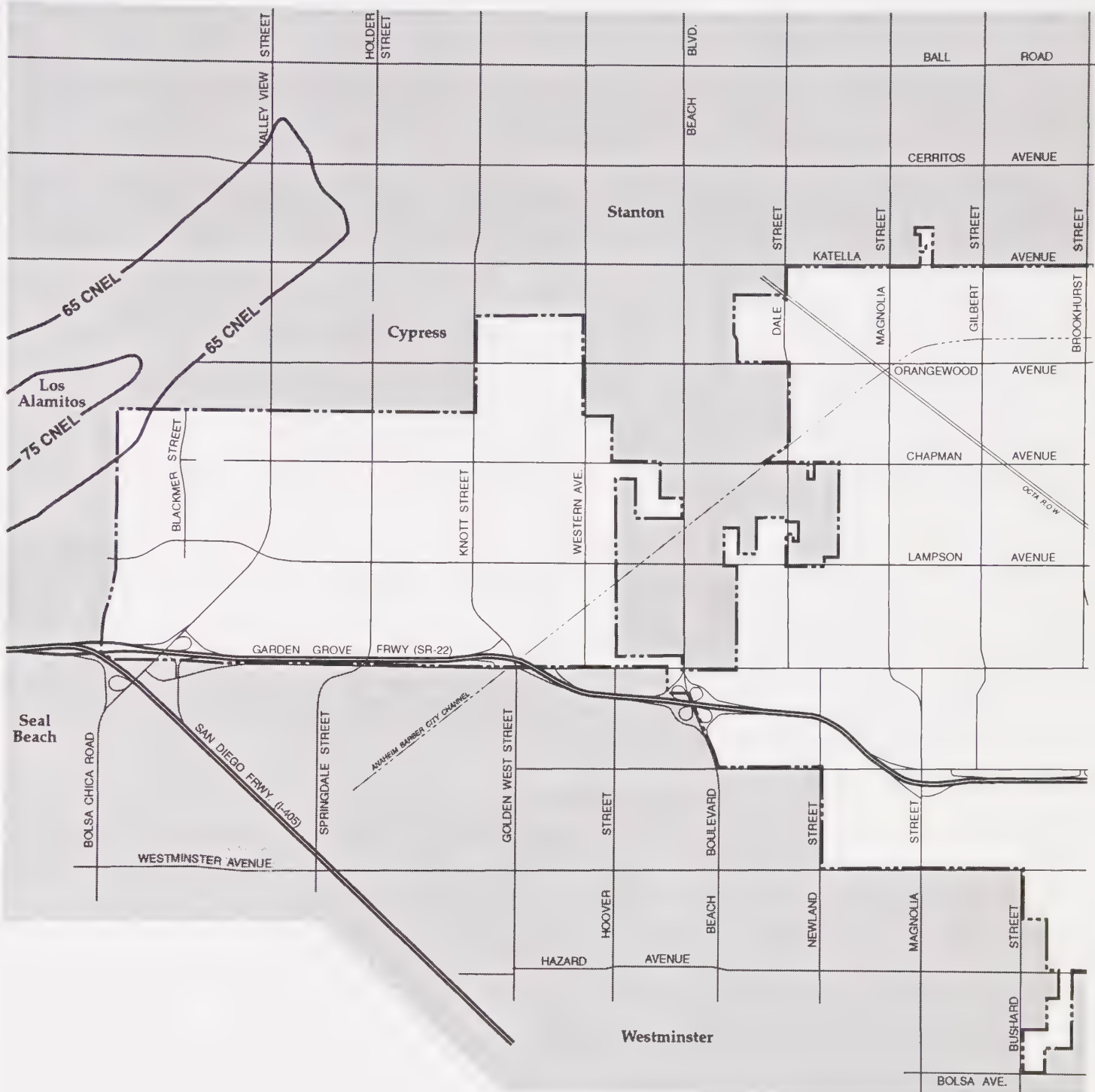
Stationary Noise Sources

Stationary noise sources within the City of Garden Grove include construction activities, mechanical equipment, power tools, industrial activities, commercial activities and residential activities. The noise associated with these sources may represent a single event noise occurrence, short-term or long-term/continuous noise.

⁴Telephone conversation with Mr. Bob Price of Southern Pacific Transportation Company Railroad. March 17, 1993.

GARDEN GROVE

GENERAL PLAN



Source: Airport Land Use Commission for Orange County,
Airport Environs Land Use Plan - NAS Los Alamitos

Noise Contours for Los Alamitos Naval Reserve Air Base

Construction Noise

Activities associated with construction are a highly noticeable temporary noise source. Noise is generated from two primary sources during the construction phase of any project. The transport of workers and equipment to the construction site incrementally increases noise levels along affected roadways. However, this increase does not generally exceed 1 dBA when averaged over a 24-hour time period.

The second source of short-term noise is related to construction noise itself. Construction activities occur in various steps, each of which involve different types of equipment and a distinct noise characteristic; Exhibit 6, *Construction Noise*, shows the noise levels associated with various construction related activities.

Excessive noise levels resulting from construction activities generally occur in the daytime hours only since construction normally is prohibited during evenings, Sundays and holidays. However, noise sensitive receptors in proximity to the construction site may be temporarily annoyed by the increase in ambient noise levels produced by construction activities. Construction noise is best controlled through the control of construction hours.

Industrial Noise

Industrial land uses may have the potential to exert a relatively high level of noise impact within their immediate operating environments. Industrial development within the City of Garden Grove is relatively limited in scope, and confined, for the most part, to operations which can be characterized as “light industrial” uses. Industrial noise sources are located in several isolated pockets throughout the City on land zoned M-1 (Limited Industrial), M-P (Industrial Park) and PUD (Planned Unit Development). A total of approximately 877 acres or 7.7% of the total land area within the City is currently developed for industrial purposes.

Commercial and Residential Related Noise

A variety of stationary noise sources associated with commercial and residential activities exist throughout the City of Garden Grove. Commercial noise sources may include mechanical equipment and engines in non-moving motors such as power tools, i.e., automobile repair shops. Stationary noise sources associated with residential areas are primarily due to air conditioners and pool/spa equipment. Additional stationary noise sources include animals, stereos, musical instruments, sporting events and horns. These noise sources have the potential to temporarily disrupt the quietness of an area. Effective control of these noise sources cannot be accomplished through decibel standards, instead may be accomplished through provisions in the Noise Ordinance.

Sensitive Noise Receptors

Sensitive Noise Receptors

Sensitive land uses generally cannot accommodate levels of noise which would, under other circumstances and with regard to other land uses, not

		Noise Level (dBA) at 50 feet					
		60	70	80	90	100	110
Earth Moving	Front Loader						
	Dozer						
	Dragline						
	Backfiller						
	Scraper / Grader						
	Trucks						
Materials Handling	Concrete Mixers						
	Concrete Pumps						
	Motor Crane						
Stationary	Pumps						
	Generators						
	Compressors						

Note: Based on limited Available Data Samples

Source: EPA, 1971; "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances". NTID300.1



Construction Noise

Activities associated with construction are a highly noticeable temporary noise source. Noise is generated from two primary sources during the construction phase of any project. The transport of workers and equipment to the construction site incrementally increases noise levels along affected roadways. However, this increase does not generally exceed 1 dBA when averaged over a 24-hour time period.

The second source of short-term noise is related to construction noise itself. Construction activities occur in various steps, each of which involve different types of equipment and a distinct noise characteristic; Exhibit 6, *Construction Noise*, shows the noise levels associated with various construction related activities.

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Sensitive Noise Receptors

Sensitive Noise Receptors

Sensitive land uses generally cannot accommodate levels of noise which would, under other circumstances and with regard to other land uses, not

be considered intrusive in character. Therefore, the elements of location, hours of operation, type of use, and extent of development warrant extremely close analysis in an effort to insure that the quality of services provided by these noise sensitive receptors is not diminished by the effects of intrusive noise.

The City of Garden Grove has identified residences, public and private school/preschool classrooms, churches, hospitals and elderly care facilities as noise sensitive receptors. The maximum interior exposure for these land uses is 45 Ldn (maximum exterior exposure is 65 Ldn).

The City, described as a residential community, contains a total of approximately 29,497 single-family dwelling units and 14,974 multi-family dwelling units, representing 49.3% of the City's acreage. With the exception of residential land uses, Exhibit 7, *Sensitive Receptor Location Map*, illustrates the location of these land uses.

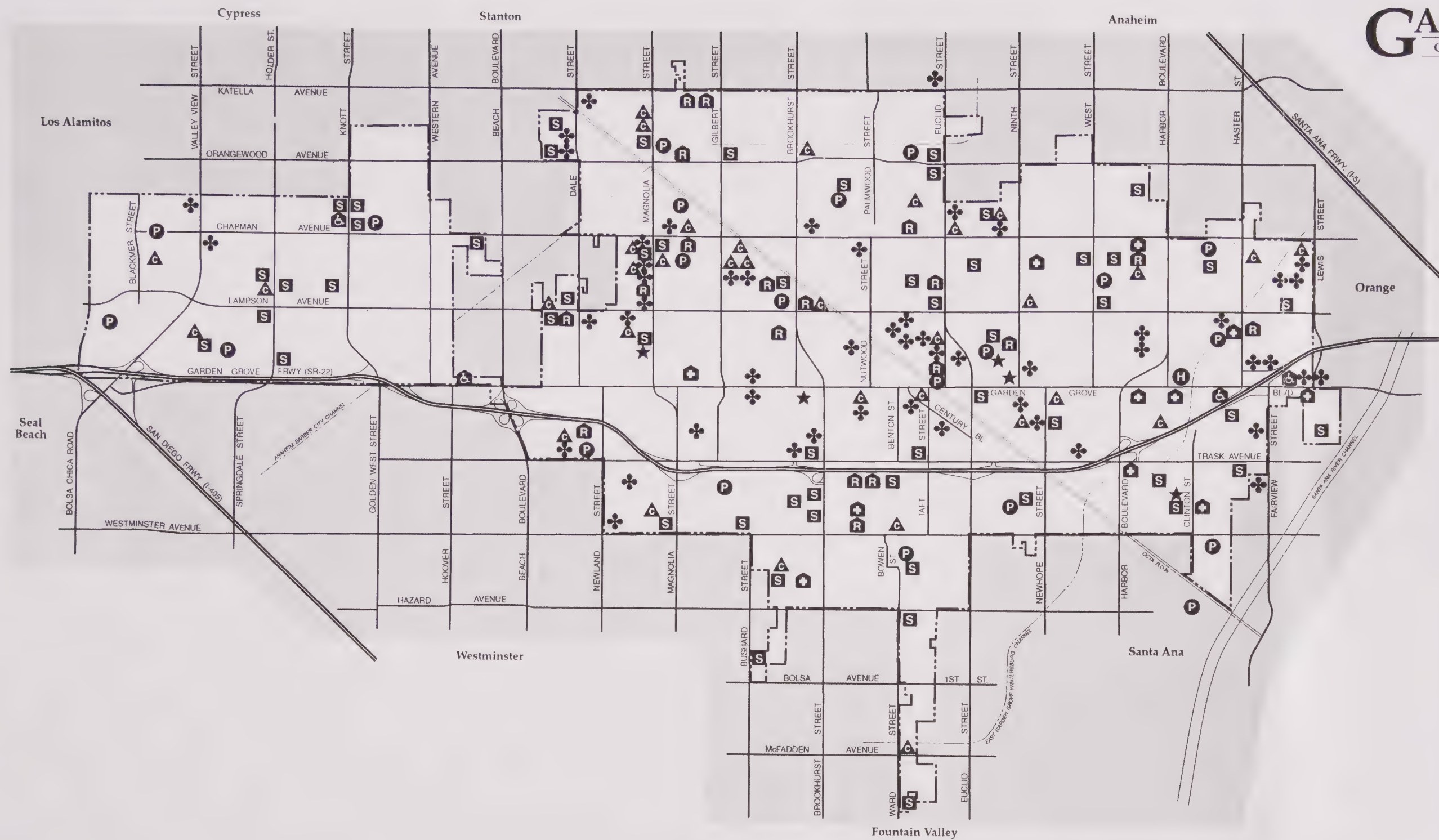
The potential exists that noise sensitive receptors located adjacent to the roadway may currently be experiencing excessive noise levels. Depending on the setback location of these adjacent noise sensitive receptors and nature of existing noise attenuation features (if any), the 65 CNEL contour may fall within the outdoor living areas of these land uses, i.e., playground or backyard. Noise sensitive receptors located within the noise impact zones associated with the Air Base may also be experiencing excessive noise levels due to aircraft operations.

5. FUTURE NOISE ENVIRONMENT

As discussed in the Circulation Element, the future traffic volumes in the City of Garden Grove are projected to increase from 806,222 total daily trips, to slightly over one million daily trips, a 25% increase. This increase is due primarily to an increase in regional traffic volumes from surrounding communities utilizing the Garden Grove street system, as well as projected land use build-out within the City. The City-wide increase in trips as compared between the adopted Land Use Plan and the Land Use Plan Alternatives, is less than significant in terms of noise. In addition, the Garden Grove Freeway (SR-22) is now, and will continue to be, a major noise source in the City. An analysis of the Alternatives is included in Appendix A of this Element.

The adopted Land Use Plan traffic volumes would result in arterial noise level increases on the order of 2 to 4 dBA CNEL, reflecting an Average Daily Traffic increase of 2,000 to 37,000 ADT. As noted previously, sensitive receptors in the City of Garden Grove are currently exposed to exterior noise levels in excess of 65 CNEL. The projected traffic volume increases will

GARDEN GROVE GENERAL PLAN



- H Hospital
- C Childcare
- Church Churches
- R Retirement Homes / Residential Care Homes
- N Nursing Homes
- RC Rehab. Centers
- Y Youth Organizations
- P Parks
- S Schools



aggravate existing conditions in these areas, and may also result in additional areas exposed to excessive noise. This is a particular concern where sensitive receptors do not have adequate sound attenuation (e.g., walls and/or window/building insulation). It is important to note that noise contours are approximate, and areas within the 65 CNEL may have adequate noise attenuation.

Road segments impacted by 3 dBA CNEL or more are limited to portions of Trask Avenue east of Brookhurst Street, and Hazard Avenue. Most road segments are impacted on the order of 0.5 to 2 dBA CNEL, which would aggravate any area approaching or exceeding the 65 CNEL exterior standard. Generally, land uses within 200 feet of the roadway centerline are potentially subject to noise levels in excess of 65 CNEL. Typical mitigation for noise-impacted areas includes landscaped berms, sound walls and/or architectural upgrades. Exhibit 8, *Future Noise Contours - Land Use Plan*, indicates the approximate locations of the projected 60 and 65 CNEL noise contours. Any proposed land uses within the 60 CNEL contour should conduct site-specific acoustic studies to determine the need for noise attenuation, if necessary.

6. GOALS AND POLICIES

ISSUE

The City's existing ordinances which relate to noise do not adequately address noise abatement, use restrictions, enforcement of these restrictions, or like issues.

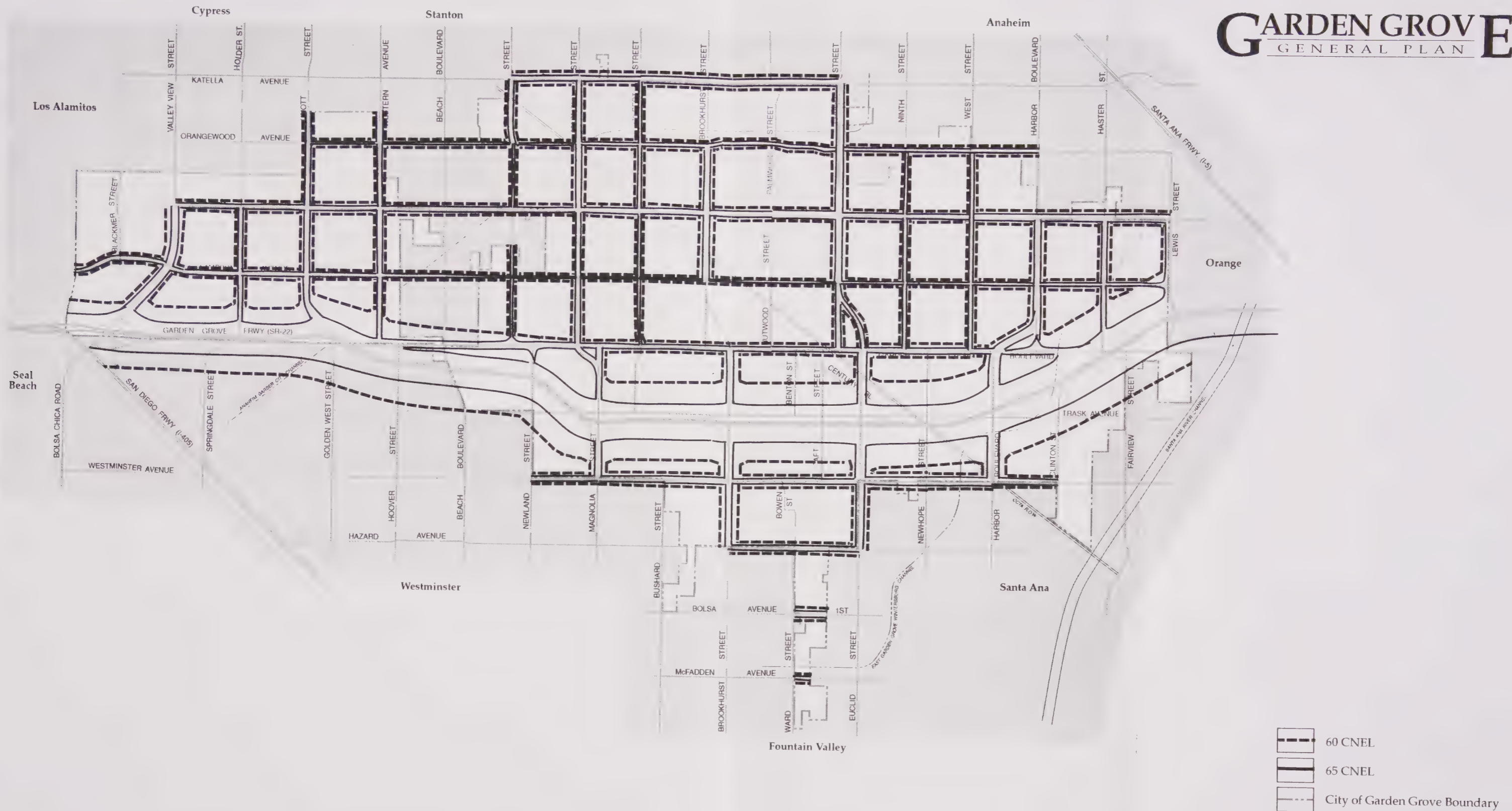
GOAL

1. Maximized efficiency in noise abatement efforts through clear and effective policies and ordinances.

POLICIES

The City should:

- 1.1 Incorporate noise considerations into land use planning decisions by establishing acceptable limits of noise for various land uses throughout the community. To this end, the City should adopt the noise standards presented in Table 6, which identify interior and exterior noise standards in relation to specific land uses.



*Noise Impacts From the
Garden Grove Freeway*

- 1.2 Amend, and combine if deemed appropriate, ordinances and policies relating to noise control. The amended ordinance(s) shall more clearly address mitigation of noise conflicts between adjacent uses, construction noise, noise associated with maintenance equipment (e.g., leaf blowers, street sweepers, etc.), hours of operation of construction or maintenance equipment, noise standards, abatement, enforcement, procedures, as well as like issues. To this end, consider restricting the use of loud equipment after 10:00 p.m.
- 1.3 Ensure the effective enforcement of City, State and Federal noise levels by all appropriate City divisions.
- 1.4 Disseminate information to the public regarding City noise regulations and programs, the health effects of high noise levels, means of mitigating such levels, as well as abatement and enforcement procedures.
- 1.5 Coordinate with the California Occupational Safety and Health Administration (Cal-OSHA) to provide information on occupational noise requirements within the City.
- 1.6 Actively advocate noise control requirements for all new motor vehicles.
- 1.7 Examine the potential to establish a Violators Fee for persons requiring a second call/visit for violating the noise ordinance(s).

ISSUE

Caltrans' current noise standard is 67 dBA Leq, the City's and County's noise standard is 65 dBA CNEL. The Garden Grove Freeway is one of the primary noise sources within the City. There are some areas along the freeway which do not have soundwalls. In addition, some soundwalls do not properly mitigate the noise levels emanating from this source.

GOAL

2. Minimized noise impacts from the Garden Grove Freeway, ensuring that the City and County interior and exterior maximum noise level standards are not exceeded.

POLICIES

The City should:

- 2.1 Encourage Caltrans to meet the City's and the County's standard for exterior noise levels of 65 dBA CNEL.

- 2.2 Where appropriate and feasible, encourage Caltrans to keep interior residential noise levels below the City's and the County's standard of 45 dBA CNEL.

Related goals and policies are found in the Circulation and Infrastructure Element.

ISSUE

Noise along the City's arterial roadways is significant, and without proper noise attenuation may exceed the City's and County's standard of 65 dBA.

GOAL

3. Minimized noise impacts on residential uses and noise sensitive receptors along the City's arterial streets, ensuring that the City and County interior and exterior noise levels are not exceeded.

POLICIES

The City should:

- 3.1 Examine the feasibility of implementing sound attenuation measures along the City's arterial streets. To this end, prioritize the areas in need of sound attenuation based on: degree of sensitivity, excess of maximum allowable standards, length of time the noise impact has existed, and number of residential units impacted.
- 3.2 Examine the feasibility of an ordinance which creates an overlay zone to be placed over single-family residential properties along arterial streets. This overlay zone would implement the provisions for retaining affected single-family residential homes through techniques such as those described above. Some of these techniques would only be permitted in the overlay zone as they would not be allowed in standard R-1 zoned areas.
- 3.3 Augment the list of eligible improvements under the Community Development Block Grant (CDBG) Home Improvement Loan/Rebate Program to include remedial improvements (e.g., construction) to homes lying in CDBG areas and located within the overlay zone, as described above.
- 3.4 Minimize potential transportation noise through proper design of street circulation, coordination of routing, and other traffic control measures (e.g., shifting travel lanes away from impacted units, adding bike lanes, etc.).

3.5 Discourage through traffic in residential neighborhoods.

Related goals and policies are found in the Circulation and Infrastructure Element.

ISSUE

There are currently no transit operations along the OCTA right-of-way; and noise associated with rail operations along the Southern Pacific Railroad (S.P.R.R.) is minimal at the present time. If a transit line is developed along the OCTA right-of-way, or if operations along the S.P.R.R. line are increased, noise impacts along these corridors may significantly increase.

GOAL

4. Minimized noise impacts on residential areas from rail and/or transit operations.

POLICIES

The City should:

- 4.1 Continue to encourage the Southern Pacific Transportation Company to schedule trains during daylight hours when possible.
- 4.2 Require noise attenuation measures for residential construction in areas affected by the 65 dBA CNEL railroad noise contour. Sound attenuation measures shall reduce interior noise to a maximum of 45 dBA CNEL. These measures shall be taken for all residential construction in the railroad noise impact area, both for entirely new structures and for renovations, remodels and building additions.
- 4.3 Work with the OCTA in the development of the OCTA right-of-way (R.O.W.) to ensure that noise attenuation measures are addressed in: the selection of the rail and vehicle technology for use along the R.O.W.; the design and construction of the transit rail line; and the siting, design, and construction of stations.

Related goals and policies are found in the Circulation and Infrastructure Element.

ISSUE

Noise associated with the Los Alamitos U.S. Naval Reserve Air Base moderately affects areas of West Garden Grove.

GOAL

5. Maintained, or reduced, noise levels associated with operations at the Los Alamitos U.S. Naval Reserve Air Base.

POLICY

The City should:

- 5.1 Coordinate with the Airport Land Use Commission (ALUC) to monitor any expansion plans and/or increased activities at the Air Base.

Related goals and policies are found in the Land Use, and Circulation and Infrastructure Elements.

ISSUE

Increases in general noise levels are continuing to change the environment in Garden Grove. Noise and land use incompatibilities can be avoided in new developments when noise is properly considered in the planning, design, and permitting of a project.

GOAL

6. Noise considerations incorporated into land use planning decisions.

POLICIES

The City should:

- 6.1 Require all new residential construction in areas with an exterior noise level greater than 65 dBA CNEL to include sound attenuation measures that reduce interior noise levels to the standards shown in Table 6. Sound attenuation measures include:
 - Sound walls,
 - Double glazing,
 - Siting, and/or
 - Facade treatment.
- 6.2 As needed, or required, incorporate a noise assessment into the environmental review process, for purposes of identifying potential noise impacts and noise abatement procedures. And require noise reduction techniques in site planning, architectural design, and construction where noise reduction is necessary.

- 6.3 Ensure acceptable noise levels near schools, hospitals, convalescent homes, churches, and other noise sensitive areas in accordance with Table 6. To this end, require buffers or appropriate mitigation of potential noise sources. Such sources include, but are not limited to: truck pickup and loading areas, mechanical and electrical equipment, exterior speaker boxes and public address systems, etc.

Related goals and policies are found in the Land Use, Circulation and Infrastructure, Housing, and Community Design Elements.

GOAL

7. Minimized noise impacts associated with residential uses in mixed use developments.

POLICIES

The City should:

- 7.1 Require the design of mixed use structures to incorporate techniques to prevent transfer of noise and vibration from the commercial to the residential use.
- 7.2 Encourage commercial uses in mixed use developments which are not noise intensive.

Related goals and policies are found in the Land Use and Housing Elements.

◆ APPENDIX A

1. ALTERNATIVES DISCUSSION

1.1 MODIFIED PROPOSED PLAN 1

The Modified Proposed Plan 1 traffic volumes are nearly identical to the adopted Land Use Plan, and therefore would not have significantly different noise impacts.

1.2 MODIFIED PROPOSED PLAN 2

The Modified Proposed Plan 2 traffic volumes are similar to the adopted Plan volumes for most of the City, with the exception of Harbor Boulevard and West Street. This Alternative calls for realigning and linking West Street to Buaro Street, in this way the realigned section would become a major parallel arterial to Harbor Boulevard. The roadway configuration in this area would result in a significant reduction in traffic noise on West Street. In this scenario, traffic volumes increase substantially in the area, over 10,000 ADT, as compared to the adopted Land Use Plan. In addition, with the connection of Century Boulevard to the Euclid/SR-22 intersection, traffic volumes would increase in the vicinity of Garden Grove Boulevard and Trask Avenue near Century Boulevard, with some sections on Harbor Boulevard increasing by as much as 14,000 ADT on Garden Grove Boulevard.

GARDEN GROVE GENERAL PLAN

◆ OPEN SPACE / CONSERVATION

It is the objective of the City of Garden Grove to conserve its land, water and other natural resources, as well as its historic heritage in order to maintain the scale and identity of the community.

*The Open Space and
Conservation Elements
have been Combined in the
Garden Grove General
Plan*

1. INTRODUCTION

The City of Garden Grove was founded on a rich endowment of natural resources: abundant potable groundwater; open space created by broad and level expanses of prime agricultural soils; a mild and healthful climate supportive of a wide range of agricultural products; and immediate availability of sand and gravel resources.

These resources began to diminish as the City grew and the region urbanized: as the population in the area grew, demand for water increased; economics dictated that the most profitable use of land was not for agricultural production or sand and gravel extraction, but rather for residential and commercial development.

2. AUTHORITY FOR THE ELEMENT

The California State Government Code mandates that all general plans include both an open space and a conservation element. The open space and conservation elements complement one another due to the overlap in State requirements and the inter-relationship of issues within each element. This is particularly true in the City of Garden Grove where the City is virtually built-out and is no longer endowed with an abundant supply of open space and undeveloped natural resources. It is important to focus on the conservation of the City's few remaining resources and open spaces. For these reasons, the open space and conservation elements have been combined in the Garden Grove General Plan.

2.1 Open Space Element

Government Code Section 65302(e) stipulates that a general plan include an open space element. The contents of the open space element are identified in Government Code Section 65560 as follows:

“(b) Open space land is any parcel or area of land or water which is essentially unimproved and devoted to an open space use ... and which is designated on a local, regional or state open space plan as any of the following:

(1) Open space for the preservation of natural resources including, but not limited to, areas required for the preservation of plant and animal life ...

(2) Open space used for the managed production of resources, including but not limited to ... agricultural lands and areas of economic importance for the production of food or fiber; areas required for recharge of ground water basins ... and areas containing major mineral deposits, including those in short supply.

(3) Open space for outdoor recreation, including but not limited to, areas of outstanding scenic, historic and cultural value; areas particularly suited for park and recreation purposes ... and areas which serve as links between major recreation and open space reservations, including utility easements ... trails, and scenic highway corridors.

(4) Open space for public health and safety, including, but not limited to, areas which require special management or regulation because of hazardous or special conditions such as earthquake fault zones, unstable soils areas, floodplains, watersheds, areas presenting high fire risks, areas required for the protection of water quality and water reservoirs and areas required for the protection and enhancement of air quality.”

The intent of the open space element is “to assure that cities and counties recognize that open space land is a limited and valuable resource which must be conserved wherever possible” and “to assure that every city and county will prepare and carry out open space plans which, along with state and regional open space plans, will accomplish the objectives of a comprehensive open space program.” (Government Code Section 65562).

2.2 Conservation Element

Government Code Section 65302(d) stipulates that the general plan include a conservation element for the “conservation, development, and utilization of natural resources including water and its hydraulic force, forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources. That portion of the conservation element including waters shall be developed in coordination with any countywide water agency and with all district and city agencies which have developed, served, controlled or conserved water for any purpose for the county or city for which the plan is prepared. The conservation element may also cover:

- (1) The reclamation of land and waters.
- (2) Prevention and control of the pollution of streams and other waters.

- (3) Regulation of the use of land in stream channels and other areas required for the accomplishment of the conservation plan.
- (4) Prevention, control, and correction of the erosion of soils, beaches, and shores.
- (5) Protection of watersheds.
- (6) The location, quantity and quality of the rock, sand and gravel resources.
- (7) Flood control.”

3. RELATIONSHIP TO OTHER ELEMENTS

The Open Space/Conservation Element relates to the other General Plan Elements in a variety of ways:

- The Land Use Element directly relates to this Element by designating certain areas of the City for open space or recreational use, thereby ensuring their conservation.
- The Circulation and Infrastructure and Community Design Elements provide for enhanced, landscaped areas throughout the City, complementing the goals and policies of this Element which relate to open space and its conservation.
- This Element’s relationship to the Housing Element is conditioned by the need to balance housing requirements with the conservation of open space and natural resources.
- The Open Space/Conservation Element relates to the Safety Element by designating those areas of the City that are detrimental to the public’s health and safety, such as utility line easements, as open space. Although these areas are unsafe for development, such lands may be suitable for open space purposes.
- Open space areas may be utilized to buffer noise sensitive land uses from noise sources, thereby establishing a correlation between the Noise and Open Space/Conservation Elements.
- This Element relates to the Economic Development Element by recommending fiscally sensitive programs to provide for the conservation of open space and preservation of natural resources.
- There is a strong correlation between the Parks, Recreation and Cultural Activities Element and this Element in that the parks within

the community represent much of the open space area within the City.

- The Open Space/Conservation and Growth Management Elements are inter-related because each strive to provide a balance between development and the conservation of open space and natural resources.
- The Air Quality Element relates directly to the Open Space/Conservation Element in that both are concerned with the preservation or conservation of natural resources. The Air Quality Element focuses on protecting the air from further contamination by reducing vehicle trips and point source emissions.

4. SUMMARY OF FINDINGS

4.1 OPEN SPACE

There are approximately 986 Acres of Open Space Uses in the City

The City's open space is comprised of parks, school district properties, the OCTA right-of-way, flood control facilities (i.e., retention basins, channels, etc.), water well sites and reservoirs, vacant properties used for interim agricultural uses, as well as greenbelts, medians and other public landscape amenities. The approximate current acreage associated with the various forms of open space in the City is summarized below.

<u>Type of Open Space</u>	<u>Approximate Acreage</u>
Parks	159 ^{1,2}
Schools	594
OCTA Right-of-way	61
Flood Control Facilities	60 ³
SCE Easements	28
Water Wells and Reservoirs	6
Vacant properties/Interim Agricultural Use	26
Greenbelts, medians and other public landscaped amenities	42
Landfill at Harbor and Chapman	<u>10</u>
	986

¹Includes approximately 13 acres associated with the water retention facility at Twin Lakes Park. Without the 13 acres associated with the water retention facility at Twin Lakes Park, the total amount of park acreage is 146 acres.

²Does not include Willowick Golf Course, owned by the City of Garden Grove, located in Santa Ana.

³Does not include water retention facility at Twin Lakes Park.

No Known Natural Resources in Garden Grove

Little Area in the City is Used for the Production of Resources

The City Currently has a Parks to Population Ratio of 1.07 Acres to 1,000 Persons, the City's Goal is to Achieve Five Acres per 1,000 Persons

4.1.1 Open Space for the Preservation of Natural Resources

The Government Code stipulates that open space for the preservation of natural resources be incorporated into the General Plan. However, there are no known natural resources within the City of Garden Grove (i.e., significant areas of plant and animal life, including habitat for fish and wildlife species; areas of ecologic and/or other scientific study value; rivers, streams, bays and estuaries; and coastal beaches, lake shores, banks of rivers and streams, and watershed lands).

4.1.2 Open Space for the Production of Resources

In Garden Grove, open space used for the production of resources includes agricultural lands and areas containing major mineral deposits.

Excluding agricultural activity along the SCE easements or the OCTA right-of-way, there are approximately 26 acres of property within Garden Grove which are under agricultural production. With the exception of a thirteen acre parcel, none of these holdings are large sites. While there is no specific agricultural zoning classification within the City, agricultural production is permitted within residential zones. While agricultural production is not a significant factor in the City's economy, agriculture does offer a positive contribution to the City's inventory of open space.

Four areas in the City have been mined for sand and gravel, however, extraction operations at these locations ceased several years ago.

4.1.3 Open Space for Outdoor Recreation

As discussed in the Parks, Recreation and Cultural Activities Element, the recreational land in the City totals 158.9 acres. The City's target for the ratio of park acres to population is five acres per 1,000 population; the current ratio of park acres to population is 1.07 acres per 1,000 population, below the City's goal. In that the City is virtually built-out and vacant land is almost non-existent, opportunities for new park development are limited.

In addition to the City's parks, the City owns Willowick Golf Course, a 101-acre municipal golf course in the City of Santa Ana.

There are also approximately 761 acres of open space uses which may be suitable for recreational purposes as identified on the previous page. These uses include schools (in addition to those joint use facilities included under

parks), the OCTA right-of-way, SCE easements, vacant properties, the closed landfill at Harbor Boulevard and Chapman Avenue, as well as greenbelts, medians and other public landscaped amenities.

Additional information can be found in Section 3.11, Parks, Recreation and Cultural Activities and Section 3.2, Circulation, in the Existing Conditions Report and Chapter Eight of this General Plan, Parks, Recreation and Cultural Activities.

There are Five Types of Open Space Uses for the Public's Health and Safety in Garden Grove

4.1.4 Open Space for Public Health and Safety

“Open space for public health and safety,” is defined as those “areas which require special management or regulation because of hazardous or special conditions.” There are five types of special management areas in Garden Grove:

- The OCTA right-of-way is being reserved for the future development of an urban transportation system. In the interim, non-permanent types of uses are permitted along this corridor.
- In order to protect the health and safety of the public, the SCE easements are severely constrained for human habitation or employment by law.
- The closed landfill at Harbor Boulevard and Chapman Avenue is severely restricted by State and Federal regulations (it should be noted that the City has approved a limited use golf course driving range for the site).
- The flood control channels, by their very nature, do not allow for any use other than for the conveyance of water.
- The two flood control basins in Garden Grove offer an open space amenity with limited recreational value.

4.2 CONSERVATION

4.2.1 Water Resources

Water is a precious resource in Southern California, a region which would return to its natural semi-arid condition without the importation, careful

management, storage and reuse of its water supply. Water conservation, the use of reclaimed water, as well as the control and treatment of runoff pollution is critically important not only to Garden Grove, but the entire region.

Regional Water Agencies

A number of public and quasi-public agencies act cooperatively with one another to supply, distribute, conserve and maintain water resources for the City of Garden Grove and the Southern California region.

Agencies Responsible for the Supply of Water

Agencies responsible for supplying water to the area include: the Metropolitan Water District of Southern California (MWD) which imports water to the region and operates several filtration plants to treat water supplies; and the Municipal Water District of Orange County (MWDOC), a wholesale agency serving imported water to approximately 70% of Orange County. In addition, the Orange County Water District (OCWD), is responsible for the groundwater supply within the Districts boundaries.

Agencies Responsible for the Conservation and Maintenance of Water

Agencies responsible for the conservation and maintenance of water resources include: not only the OCWD, which protects the Lower Santa Ana Groundwater Basin from depletion and contamination, but also the Santa Ana Regional Water Quality Control Board, which regulates water quality in the region.

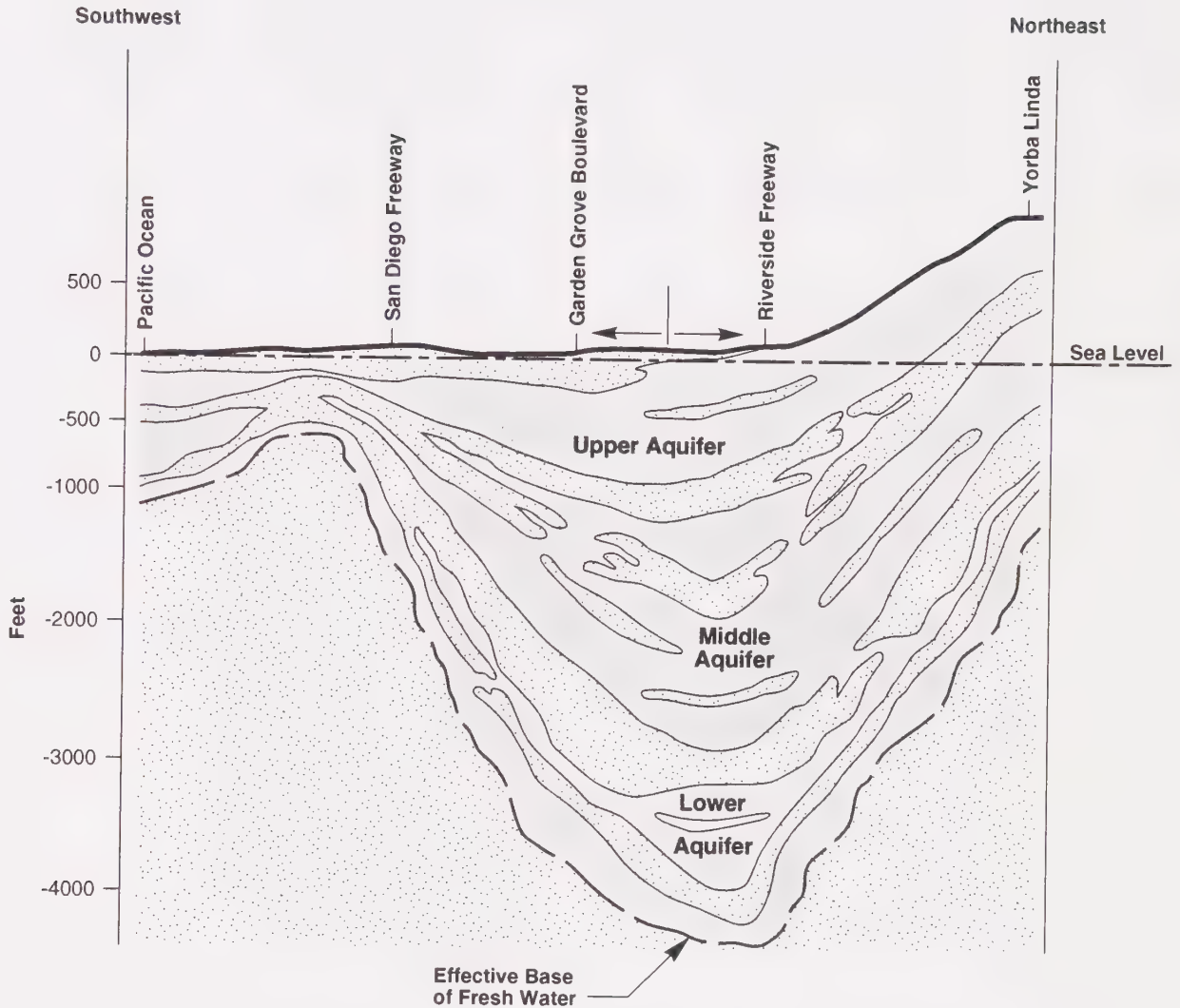
The City is Responsible for the Municipal Water Distribution System

The City of Garden Grove is responsible for the operation and maintenance of the municipal water distribution system. The City is responsible for a variety of distribution system components, including: approximately 360 miles of water mains, over 3,000 fire hydrants, more than 33,000 service connections, and seven reservoirs.

Groundwater Resources

Approximately 75% of the City's water supply comes from groundwater resources. The remaining 25% comes from imported water.

The groundwater basin which underlies Garden Grove is the Santa Ana River Basin, fed by natural and man-made runoff from the Santa Ana River watershed. The basin consists of an upper, middle and lower aquifer, which interconnect in various locations, as shown in Exhibit 1, *Cross Section of the Groundwater Basin*. The basin is estimated to contain approximately ten million acre feet of water, of which 1.5 million acre feet are potentially available for use. The City of Garden Grove uses an average estimated 29,000 acre-feet per year.



Source: Groundwater Management Plan,
Orange County Water District, 1991



Robert Bein, William Post & Associates

4-93

JN 28912-4163

Cross Section of the Groundwater Basin

Exhibit 1

*Groundwater Depths
Range from Ten to Thirty
Feet Below Sea Level*

The OCWD manages a system of diversion structures and recharge basins in the forebay of the Basin (within the Santa Ana River bed) which capture much of the water which would otherwise flow into the Pacific Ocean. The OCWD also operates a series of off-channel spreading basins along the river which replenish the groundwater basin.

The depth to groundwater varies, in a year of high rainfall, the basin may reach a full condition, with groundwater depths of thirty to fifty feet above sea level, or thirty to ten feet below the ground surface. Exhibit 2, *Storage in Orange County Groundwater Basin*, shows the basin's groundwater storage reserves from 1956 to 1993.

Groundwater is pumped from over 500 wells within the OCWD. As shown on Exhibit 3, *Water Service Facilities*, Garden Grove currently operates a total of 12 wells.

Groundwater Management

The OCWD has developed a groundwater management plan which outlines plans and strategies for water quality management, enabling the District to continue its conjunctive use program with the MWD to balance the use of groundwater and surface/imported water. OCWD is undertaking a number of water reclamation projects for purposes of expanding local water supplies.

Imported Water

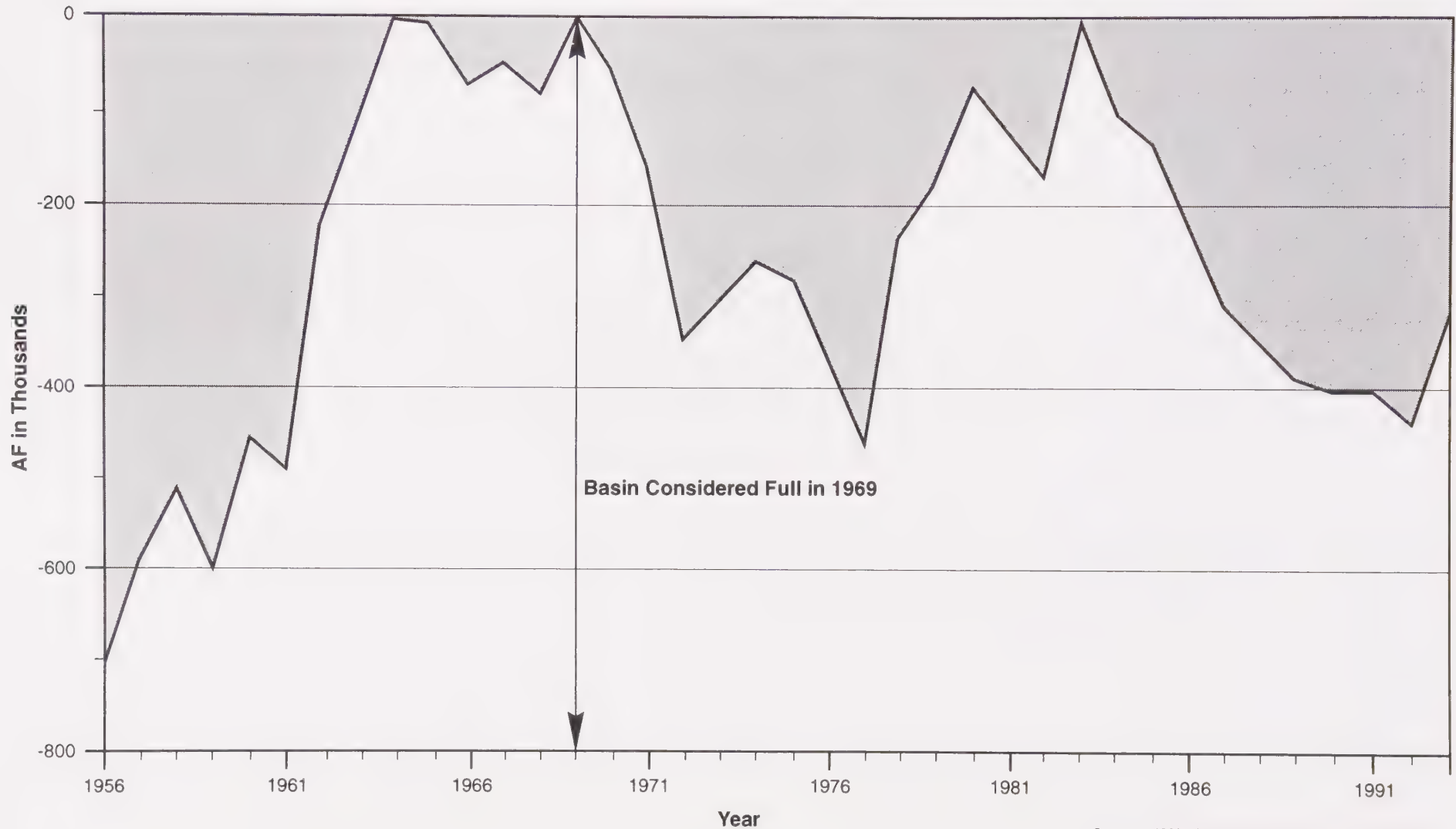
As mentioned previously, approximately 25% of the City's water supply comes from MWD-imported water which can be directly fed into the municipal water system. As shown on Exhibit 3, Garden Grove has four MWD Feeder connections, which provide a peak capacity of 22,500 gallons per minute.

Groundwater Quality

The Federal Safe Drinking Water Act of 1974 and its 1986 amendments are intended to ensure the quality of water supplies. The quality and safety of drinking water in the United States is regulated by the federal government through the Environmental Protection Agency (EPA). In California, those standards are enforced by the California Department of Health Services (DOHS).

The State and Regional Water Quality Control Boards currently administer the National Pollutant Discharge Elimination System (NPDES) permit regulations. Due to recent legislation, the scope of NPDES regulations has been greatly expanded to include stormwater runoff. Stormwater discharges

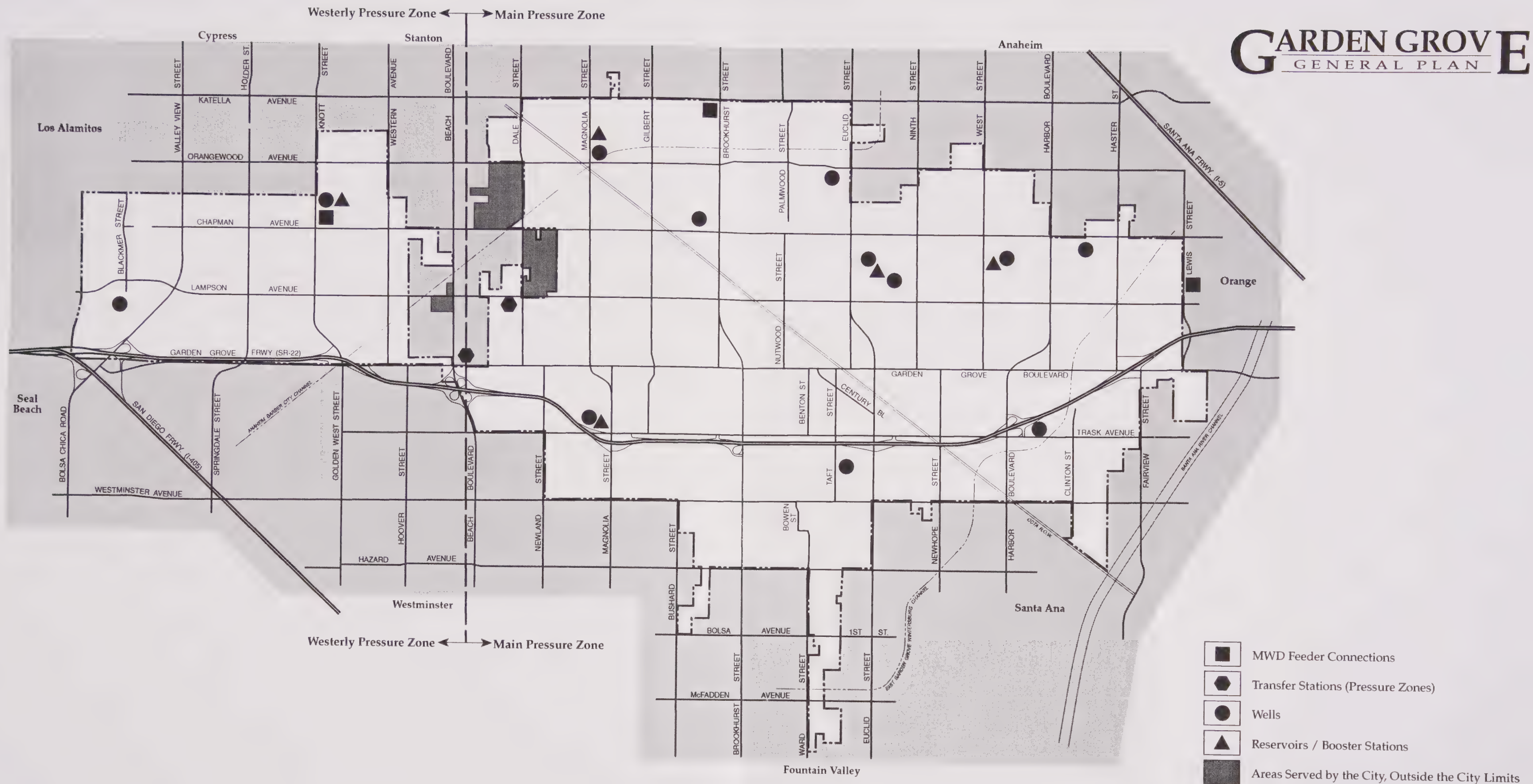
GARDEN GROVE GENERAL PLAN








Source: 1992 - 93 Engineers Report on Groundwater Conditions, Water Supply and Basin Utilization in the Orange County Water District.

Storage in Orange County Groundwater Basin





-  MWD Feeder Connections
-  Transfer Stations (Pressure Zones)
-  Wells
-  Reservoirs / Booster Stations
-  Areas Served by the City, Outside the City Limits

Source: City of Garden Grove
Water System Map, April 1991

Water Service Facilities

Groundwater Quality is Generally Good, Water Containing High Nitrate Levels is Specially Treated

consist primarily of non-point source surface runoff from streets, lawns, parks, and upland undeveloped areas.

Local groundwater quality has been degraded from sources both outside and within the basin. The primary source of water quality degradation is treated wastewater, high in nitrates, discharged into the Santa Ana River by upstream sewage treatment plants; the second is agricultural and dairy water runoff; and the third is imported Colorado River water which contributes to the salt content of wastewaters discharged to the Santa Ana River. The OCWD has adopted a groundwater quality protection policy, which outlines a comprehensive effort to mitigate water quality monitoring wells within the District and periodic sampling and testing.

Garden Grove obtains its water from 12 wells, drilling to depths of approximately 700 to 1,000 feet. In the past, the City has had a problem with high nitrate levels in water from shallow wells. This problem was largely solved by drilling deeper wells and closing down affected wells. Currently, the water quality in the City of Garden Grove is generally good, with groundwater within the standards set by the State of California Department of Health Services, with the exception of unacceptably high nitrate levels in some wells, and high total dissolved solids⁴. The City, in coordination with the District, is active in the treatment of groundwater for nitrates and salts through two wellhead treatment projects using a process which blends high-nitrate well water with high quality groundwater from nearby city wells in a city reservoir to lower nitrate levels.

Other groundwater pollution sources in the City of Garden Grove include leakage from underground storage tanks, some of which have affected the groundwater. Leakage primarily consists of gasoline, diesel fuel, and waste oil. Clean-up of these leaking tanks is monitored by the State Water Resources Control Board.

Additional information can be found in Section 3.6.1, Water Resources, in the Existing Conditions Report.

4.2.2 Solid Waste

In 1989 the California Legislature enacted the California Integrated Waste Management Act, Assembly Bill 939 and Senate Bill 1322

⁴1993 Water Quality Report, City of Garden Grove and 1994 Groundwater Management Plan, Orange County Water District.

(Chapters 1095 and 1989), in an effort to address current solid waste problems and capacities in a comprehensive and effective manner. The law requires each city and county to divert 25% of its waste from landfills by 1995, and 50% of its waste by the year 2000. The law further requires every city and county to prepare a Source Reduction and Recycling Element (SRRE); Garden Grove's SRRE was adopted in March, 1992.

*Two Districts Currently
Service the City of Garden
Grove*

The City of Garden Grove is serviced by the Garden Grove Sanitary District (GGSD) and in West Garden Grove, the Midway City Sanitary District (MCSD). Waste is then taken to the CVT Transfer Station located in Anaheim and the Olinda Alpha Landfill located near Brea. The City of Garden Grove is currently examining the potential to dissolve the GGSD and adjust the boundaries to the MCSD; under this proposal the City would assume both sanitary sewer and rubbish collection responsibilities within the City's corporate boundaries (including that area currently serviced by the MCSD).

*Waste Generation and
Diversion*

The waste categories of paper, yard waste, certain organics, plastics, and other materials contribute the largest percentages to the total waste stream in the City of Garden Grove. Garden Grove is diverting significant quantities of paper, metal and inert solids from the landfill, with smaller quantities of yard and wood wastes being diverted as well.

Special Wastes

The County of Orange assumes primary responsibility for the management of special wastes, e.g., tires, white goods, sofas and mattresses, or potentially hazardous materials such as sewage sludge, asbestos, and medical waste. The City of Garden Grove and GGSD have identified programs and tasks which support and assist the County in its efforts.

Recycling

The City of Garden Grove's current recycling efforts include: an active curbside recycling program, an education and public awareness campaign, wood chip recycling program, employee deskside recycling, procurement policy, salvage operations, commercial recycling program and certified redemption centers. With regard to oil recycling, the City assists those businesses which collect used oil to become State licensed; in addition, the City also conducts a public information and outreach program which provides residents with information relating to the recycling of used oil.

Yard Waste

Yard waste makes up approximately 27% of the City's residential waste, yard waste represents the largest amount (with paper) of material in Garden Grove's residential waste stream. A composting program for yard waste will be implemented by mid-1995.

In addition to the yard waste curbside program and shredding/mulching activities planned as part of the Recycling Component, the GGSD and the County of Orange, as part of regional composting efforts, are pursuing additional composting program activities.

The City of Garden Grove expects that the programs described in the Element will together achieve 28% diversion by 1995 and 52% diversion by the year 2000. These percentages reflect estimated diversion excluding recycled inert solids and incinerated yard and wood wastes.

Additional information can be found in Section 3.13.4, Solid Waste, of the Existing Conditions Report.

4.2.3 Energy

Energy resources available to Garden Grove play an important role in determining the type and amount of development that the future may hold for the community. Conservation of precious energy resources, such as oil, electricity and natural gas, is critical in light of their limited supply and environmental concerns related to their provision.

Most traditional energy resources are imported; natural gas is imported by the Southern California Gas Company, while electricity is provided by Southern California Edison (SCE). Regional and local distribution facilities for both electricity and natural gas are found within Garden Grove.

Although Garden Grove has an adequate supply of energy resources at the present time, for the long term, Garden Grove may need to look at supplementing local demands with alternative energy sources, such as wind and solar energy (i.e., roof-mounted solar panels or energy generated from windmills outside the City).

Given the area's warm climate, the most important alternative and renewable energy resource in Garden Grove is solar energy. This energy source has considerable potential and can be developed to substitute for oil, gas, and other energy supplies. Because of solar energy's ability to substitute for fossil fuels, it can be an important tool in the battle against air pollution.

Additional information relating to the provision of electricity and natural gas can be found in Sections 3.13.5 and 3.13.6, respectively, of the Existing Conditions Report. More detailed information relating to crude oil and petroleum product pipelines can be found in Section 3.14, Hazardous Materials, of the Existing Conditions Report.

4.2.4 Historic Resources

Archaeological and Paleontological Resources

There are no known paleontological sites within the City of Garden Grove.

There is only one prehistoric site within the City, this site is located beneath a residential development and contains shellfish remains from food debris, stone tools and stone flakes from manufacturing stone tools.

Twelve Historic Sites Located in City

Twelve historic archaeological sites have been identified within the City boundaries. These sites are primarily locations of historic trash in association with residences and commercial structures dating from the early 1900s.

Three Existing Buildings Considered Candidates for Nomination to National Register of Historic Places

There are approximately 132 buildings which the City considers to be locally significant historic resources. Of these, the Stanley or Ware House within Heritage Park, the Harry A. Lake House, and the Reyburn House are considered candidates for nomination to the *National Register of Historic Places*.

Additional information can be found in Section 3.10, Historic and Prehistoric Resources, in the Existing Conditions Report.

5. GOALS AND POLICIES

ISSUE

Limited Open Space Resources

Garden Grove is primarily built out and has begun its second cycle of growth, that of redevelopment and intensification of land uses and densities. As densities increase, preservation of the limited open space resources becomes increasingly important, as they provide visual relief from the urban, environment and outdoor recreation opportunities to the growing number of residents who will live in urban housing, without yards, gardens or private play areas.

Agriculture has played an important role in the history of Garden Grove; the annual Strawberry Festival celebrates this heritage. The few remaining agricultural fields are rapidly disappearing due to the economic pressures associated with an urbanized community.

GOAL

1. Preservation of open space resources in Garden Grove.

POLICIES

The City should:

- 1.1 Maintain existing open space resources in Garden Grove.
- 1.2 Promote visually appealing landscaped corridors and a sense of spaciousness throughout the community.
- 1.3 Continue to require that adequate, usable and permanent private open space is provided in residential developments.
- 1.4 Consider the potential to provide maintenance of open space areas through public awareness and volunteer programs.

Other related goals and policies are found in the Land Use, Parks, Recreation and Cultural Activities, Safety and Community Design Elements.

ISSUE

Water is a precious resource in Southern California, a region which would return to its natural semi-arid condition without the importation, careful management, storage and reuse of its water supply. Water conservation, the use of reclaimed water, as well as the control and treatment of runoff pollution is critically important not only to Garden Grove, but to the entire region.

GOAL

2. Protection and conservation of Garden Grove's water resources.

POLICIES

The City should:

- 2.1 Maintain and improve water quality.
- 2.2 Continue to work with federal, state, and regional governments and agencies to protect and improve the quality and quantity of local and regional groundwater resources available to the City.
- 2.3 Monitor land uses draining into water sources and water recharge areas, to prevent potential contamination from hazardous or toxic substances.
- 2.4 Minimize soil erosion and sedimentation from construction activities through monitoring and regulation.

- 2.5 Conserve and enhance the water supply available to the City.
- 2.6 Require water conservation design and operation in new development.
- 2.7 Encourage the use of reclaimed water in all applications for which potable water is not necessary.
- 2.8 Educate citizens in water conservation and encourage its practice.
- 2.9 Practice water conservation in the management of public properties.
- 2.10 Coordinate and monitor the community's water conservation efforts to ensure their effectiveness.

Additional goals and policies related to water conservation are found in the Circulation and Infrastructure Element.

ISSUE

Waste Reduction is Critical

The City is served by two sanitary districts, Garden Grove Sanitary District (GGSD) and Midway City Sanitary District (MCSD). GGSD has initiated a full waste recycling program, fulfilling State requirements, MCSD anticipates implementing a similar recycling program in the near future. As landfills rapidly reach their capacities and new landfills become increasingly more difficult to establish, the need for waste reduction becomes critical.

GOAL

- 3. Minimize the solid waste generated within the City.

POLICIES:

The City should:

- 3.1 Continue to implement the Source Reduction and Recycling Element (SRRE) for Garden Grove.
- 3.2 Develop, monitor and revise, as feasible, a Citywide recycling program which encourages cooperation with other agencies.
- 3.3 Maintain and enhance the public education program developed by GGSD which addresses waste management and proper household waste sorting and handling.

Goals and policies which specifically address hazardous waste are found in the Safety Element.

ISSUE

Energy resources play an important role in the sustenance of a community. Recent history has shown that constraints on energy supplies due to natural, political or economic causes can have drastic impacts on the conduct of business, industry and the daily lives of the residents in a city. Therefore energy conservation is of the utmost importance to the future stability and resilience of Garden Grove.

GOAL

4. Conservation of scarce energy resources.

POLICIES

The City should:

- 4.1 Ensure that new development is designed and oriented to conserve energy.
- 4.2 Promote incentives for the installation of energy conservation measures in existing residential, commercial and industrial developments.
- 4.3 Support the development of alternative sources of energy (i.e., roof-mounted solar panels or energy generated from windmills outside the City).
- 4.4 Educate the public in energy conservation.
- 4.5 Support energy conservation in transportation.

Additional goals and policies which relate to energy conservation are found in the Air Quality and Housing Elements. Goals and policies related to alternative modes of transportation are found in the Circulation and Infrastructure Element.

ISSUE

Only one prehistoric site has been identified within Garden Grove's municipal boundaries, but there are twelve historic archaeological sites where artifacts associated with structures dating from the early 1900s have been found. All the structures that remain from Garden Grove's early period are 132 historic buildings which are considered locally significant resources. Three are considered candidates for nomination to the National Register of

Historic Places. With such a limited number of historic resources, their preservation should be considered as the City continues to urbanize.

GOAL

5. Preservation of Garden Grove's historic heritage.

POLICIES

The City should:

- 5.1 Protect Garden Grove's significant historic archaeological resources whenever feasible.
- 5.2 Preserve Garden Grove's significant historic resources to promote community identity, stability, and aesthetic character.

GARDEN GROVE GENERAL PLAN

◆ ECONOMIC DEVELOPMENT

The City recognizes the importance of a healthy economy within the City, therefore the City shall strive to enhance commercial and industrial development in the community, as well as develop an economy that meets the employment, service and purchasing needs of the community.

Although the Economic Development Element is Not Required by State Law, it is Important to the Health and Vitality of Garden Grove

1. INTRODUCTION

The Economic Development Element, is not a mandatory element required by State planning law. The City has added this Element to its General Plan because the economic health of the City is important in order to maintain and improve the quality of life in the community.

In the City's Community Economic Development Strategy (CEDS), adopted in 1981, and the Community Improvement Goals and Strategies (CIGS), adopted in 1989, goals which related to the economic health of the community were common in both documents. The CEDS specifically addressed commercial form and function, employment and the development of public/private partnerships to meet the economic needs of the community, while the CIGS specifically addressed the need to enhance the City's economic base.

The importance of the City's economic well-being was also echoed at the Community Forums for the General Plan held in February and November, 1993. Attendees at these Forums indicated that developing vacant land, to generate revenue producing uses, and capitalizing on the City's proximity to Disneyland, to achieve economic benefits for the community, were the two most important economic priorities. Specific areas of the City which were cited for their economic potential were:

- The Harbor Corridor, because of it's proximity to Disneyland as well as the Convention Center.
- The Downtown or Community Center area, because of it's potential to be developed as an "Urban Village."
- And the City's namesake thoroughfare, Garden Grove Boulevard, because it is the major east/west commercial access through the City.

Responses to the 1993 Community Survey for the General Plan, conducted in the summer of 1993, also echoed the importance of the City's economic health. Only 30% of the Survey respondents indicated they shopped in the City most of the time, while almost 70% indicated they shopped in the City less than half the time. This is a disturbing statistic for the City which, like all California cities, is heavily reliant on retail sales tax for municipal revenue. In addition, almost 80% indicated that they typically purchase furniture and appliances outside of Garden Grove. Due to the large expenditures these types of items require, appreciable amounts of sales tax are lost to the City when they are purchased outside of Garden Grove.

Survey respondents indicated that department stores, good restaurants and family entertainment uses where the types of stores and services most necessary within the community.

The Economic Development Element has been written with the understanding of these, as well as other concerns related to economic development. Special needs which are focused upon in this element include: 1) maximizing the City's market potential, 2) providing net fiscal gains to the City, 3) enhancing opportunities for the development of tourism-related businesses, and 4) maintaining and enhancing the commercial and industrial development within the City.

2. AUTHORITY FOR THE ELEMENT

Although this Element is not a mandatory element required by State planning law per se, Government Code Section 65303 states that local governments may adopt "... any other elements or address any other subjects which ... relate to the physical development of the county or city." Such "other" elements are called "optional" elements. Upon adoption, an optional element becomes an integral part of the general plan. It has the same force and effect as the mandatory elements and must be consistent with the other elements of the plan.

3. RELATIONSHIP TO OTHER ELEMENTS

The intent of the Economic Development Element is to address the market constraints and opportunities for particular economic activities, fiscal and employment effects of land use patterns, and the City's efforts to capitalize on regional economic growth. Therefore, this Element relates most directly to the Land Use Element. This Element also relates to the other Elements in that all goals, policies and implementation measures should be fiscally sensitive. The Economic Development Element relates to the General Plan elements as summarized below:

- The monetary value of land uses and the revenues which those uses generate, as well as the expenditures required to maintain these uses, are considerations which are integrally related in both the Land Use and Economic Development Elements.
- The Circulation and Infrastructure, Safety, Open Space/Conservation, Community Design and the Parks, Recreation and Cultural Activities Elements are also closely related to the Economic Development Element in that these elements address a variety of improvement and maintenance programs within the City which may potentially impact the City's fiscal well-being due to capital commitment requirements.

*City's Employment Base
Has More Than Doubled
in Twenty Years*

*More Than One-Half of
Working Residents in
Manufacturing and Service
Sectors*

- The preservation of existing residential neighborhoods is a primary focus of the Housing Element, also requiring capital expenditures on the part of the City.
- The Noise, Air Quality and Growth Management Elements relate to this Element by recommending fiscally sensitive programs and activities which can be readily assimilated into existing programs.

4. SUMMARY OF FINDINGS

4.1 EMPLOYMENT

The City's employment base has increased 2½ times during the past two decades, as shown on Table 1, *Employment Trends*. In 1990, the City's employment base was estimated at 47,691 jobs; in 1995, this figure is anticipated to reach 48,068, an increase of 0.8%, as shown in Table 2, *Job Projections (1990-2020)*. As illustrated in Table 2, by the year 2020, the total employment within Garden Grove is anticipated to reach 50,888, or 3,197 additional jobs, an increase of 6.7% over 1990. By comparison, employment County-wide is expected to increase by 797,000 jobs to achieve an estimated 2,098,000 by the year 2020; this represents a 53% increase in employment by the year 2020. (It is anticipated that much of this growth will occur in the newly developing areas of central and south Orange County.)

It is estimated that there were 71,668 employed residents in Garden Grove in 1990, as reflected on Table 3, *Employed Residents by Industry*. More than one-half, 53.6%, of these jobs exist in two employment sectors: manufacturing and services.

Garden Grove is located in Regional Statistical Area (RSA) 37. It is anticipated that the tourist commercial base will continue to be favorable in this area. In addition, there will be continued industrial and commercial growth in the Anaheim area. And employment is anticipated to remain concentrated in existing employment areas including the Central Business Districts of Garden Grove and Anaheim and in the vicinity of Disneyland and the surrounding commercial/recreation area.

4.2 ECONOMIC BASE OF THE CITY

Commercial Land Uses

The total occupied retail space located in the City is estimated to be approximately 4,260,990 square feet. It should be noted that this figure differs from the total estimated existing commercial square footage identified in the Land Use Element for three reasons. One, the figure identified in

TABLE 1
EMPLOYMENT TRENDS

YEAR	EMPLOYMENT
1970	20,002
1980	35,140
1985	40,516
1990	47,691

Source: State of California, State Census Data Center,
1990 Census of Population and Housing, Summary
Tape File 3.

TABLE 2
JOB PROJECTIONS (1990-2020)

YEAR	TOTAL EMPLOYMENT	ANNUAL INCREASE	PERCENT INCREASE
1990	47,691	-	-
1995	48,068	377	0.8%
2000	48,608	540	1.1%
2005	49,159	551	1.1%
2010	49,711	552	1.1%
2015	50,299	588	1.2%
2020	50,888	589	1.2%

Source: Orange County Administrative Office (CAO), Orange County Projections, 1992, June 1992.

TABLE 3
EMPLOYED RESIDENTS BY INDUSTRY (1990)

INDUSTRY	EMPLOYED RESIDENTS	PERCENTAGE DISTRIBUTION
Agriculture	1,191	1.7%
Mining	106	0.2%
Construction	5,072	7.1%
Manufacturing	18,134	25.3%
Transportation	2,956	4.1%
Communications & Public Utilities	1,500	2.1%
Wholesale Trade	3,445	4.8%
Retail Trade	11,951	16.7%
Finance, Insurance, and Real Estate	5,032	7.0%
Services	20,326	28.3%
Government	1,955	2.7%
Total	71,668	100.0%

Source: State of California, State Census Data Center, 1990
Census of Population and Housing, Summary Tape File 3.

Additional 814,959 Square Feet of Commercial Uses Easily Supported in Year 2010

Most Significant Market Leakage in Furniture, Appliances, and Apparel

Sales in Food and Automobile Categories Strongest, Attracting Market Support from Outside City

this Element represents only occupied space, whereas the Land Use Element included both occupied and vacant building square footage. Two, this figure only represents retail commercial space, whereas the Land Use Element considered all non-residential and non-industrial uses in commercially-designated areas, as commercial uses. And three, different methodologies were used to calculate the non-residential square feet in the Land Use and Economic Development Elements. The total existing occupied square footage per retail category is summarized in Table 4, *Estimated Existing Commercial Square Footage*.

It is estimated that the City could currently support an additional 197,514 square feet of retail space and 33,215 square feet of service space over and above the existing stock, this results in a new total increment of 230,729 square feet of retail commercial space. This incremental support increases to 814,959 square feet by 2010, including the current increment of 230,729 square feet, over the existing stock. It should be noted that the support for additional retail uses is based primarily on the purchasing power of the City's residents and does not depend heavily on outside tourist support.

Capture Rate of Resident Retail Demand

Table 5, *Comparison of Market Area Demand with Actual Sales*, compares potential retail demand represented by Garden Grove residents to actual retail sales occurring in the City during 1991. These figures indicate that in most of the eleven expenditure categories the City is experiencing demand leakage (i.e., actual sales are less than potential resident demand, suggesting that City residents are leaving the City to make retail purchases).

The indicated demand leakage is most severe in the Furniture and Appliances category, with actual sales amounting to only 38% of potential demand. There is also significant leakage in the Apparel category, with actual sales recorded at 59% of estimated demand. The significant levels of leakage in these categories suggests that the supply of retail facilities offering furniture, appliances, and apparel has not kept pace with resident demand. Consequently, substantial portions of potential resident expenditures in these categories is currently being fulfilled at retail facilities outside the City.

The analysis indicates that in the Food (i.e., supermarkets) and Automobile categories, actual retail sales in the City currently **exceed** resident demand. This suggests that the City's retail facilities in these categories are actually attracting market support from outside jurisdictions. In the Food category this trend of attraction is probably attributable to the configuration of the City's boundaries, whereby pockets of other jurisdictions are surrounded on several sides by Garden Grove. Given their close proximity to Garden

TABLE 4
ESTIMATED EXISTING SQUARE FOOTAGE

Category	Square Footage	Percentage of Total
Apparel	143,225	34.0%
General Merchandise	612,768	14.4%
Furniture, Appliances	70,780	1.7%
Specialty	999,917	23.5%
Drug	241,386	15.3%
Food	649,844	5.7%
Liquor	49,022	1.2%
Eating and Drinking	847,837	19.9%
Hardware	76,722	1.8%
Service (occupying retail space)	534,957	12.6%
Education (privately owned)	34,532	0.8%
Total	4,260,990	100.0%

TABLE 5
COMPARISON OF MARKET AREA DEMAND WITH ACTUAL SALES

Retail Category	1991 Demand	1991 Sales	Expected Less Actual	Percent Actual/ Expected
Shopper Goods				
Apparel	43,599,220	25,531,000	18,068,220	58.56%
General Merchandise	121,931,789	110,129,000	11,802,789	90.32%
Furniture, Appliances	44,746,568	16,945,000	27,801,568	37.87%
Specialty	<u>116,195,049</u>	<u>114,243,000</u>	<u>1,952,049</u>	<u>98.32%</u>
Subtotal	326,472,625	266,848,000	59,624,625	81.74%
Convenience Goods				
Drug	36,923,741	28,562,760	8,360,981	77.36%
Food (Supermarkets, etc.)	249,496,013	289,026,840	(39,530,827)	115.84%
Packaged Liquor	11,786,392	7,909,000	3,877,392	67.10%
Eating and Drinking	<u>110,562,614</u>	<u>106,861,000</u>	<u>3,701,614</u>	<u>96.65%</u>
Subtotal	408,768,760	432,359,600	(23,590,840)	105.77%
Heavy Commercial Goods				
Bldg. Materials, Hardware, Farm Implements	79,271,308	61,325,000	17,946,308	77.36%
Auto Dealers and Parts	158,855,530	188,102,000	(29,246,470)	118.41%
Service Stations	<u>69,675,308</u>	<u>69,042,000</u>	<u>633,308</u>	<u>99.09%</u>
Subtotal	307,802,146	318,469,000	(10,666,854)	103.47%
Grand Total	1,043,043,532	1,017,676,600	25,366,932	97.57%

Source: The Natelson Company, Preliminary Analysis of Existing Economic Conditions, January, 1993.

Grove, residents of these jurisdictions may find it more convenient to purchase groceries in Garden Grove than in their own communities.

Commercial Market Opportunities

Opportunities Associated with Tourist Commercial Activities

There are a number of market opportunities in different market niches potentially available to the City. Due to the City's proximity to Disneyland and the Convention Center there are opportunities associated with the tourist commercial activities of the area. These opportunities are best focused in those areas closest to these activities: along the Harbor Corridor, and specifically at the Harbor Boulevard/Chapman Avenue intersection. With the proper marketing effort, a resort hotel in this area would be expected to capture a portion of the hotel-room market created by increased visitation due to an expansion of Disneyland and increased activity at the Convention Center. There may also be opportunities to provide small-scale convention/conference center facilities within the hotel to attract additional visitors. Also, additional retail and restaurant facilities in the area (beyond that which is supported by resident demand) would be supported by the increased tourist visitation to the area.

There are also opportunities associated with multi-cultural entertainment facilities and a family recreation center. These uses would be most successful in close proximity to resort hotel uses along Harbor Boulevard.

Value-Oriented or Promotional Retailing are Primary Opportunities for Garden Grove

Another market niche which is potentially available to the City is "value-oriented" or "promotional" retailing. Such factors as the income levels of Garden Grove, the higher than average rate of employment of residents in the manufacturing sector, an average household size that is higher than the County average, and an average family size that is higher than the County average, all point to a very strong orientation toward "value-oriented" or "promotional" retailing.

Auto Center

The Auto Center along Trask Avenue and SR-22 also offers unique opportunities to the City. Based on the comparison of market areas demand with actual sales in Table 5, it appears that automobile sales attract support from outside the City. This is important due to the sizable sales tax revenues generated by automobile sales within the community. Continued promotion and enhancement of the Auto Center is important to the fiscal health of the City.

Estimated 1,871,980 Square Feet of Office Space Occupied in Garden Grove

Office Land Uses

There is an estimated 1,871,980 square feet of total occupied office space within the City of Garden Grove. It should be noted that this figure differs from the figure identified as the total estimated existing office square footage in the Land Use Element, because the figure estimated for this Element

Much of Garden Grove's Office Uses are Local Serving, Although There are some Regional Serving Offices Uses in the City

City-wide Vacancy Rate Estimated to be 22-25% for Garden Office Space

takes into account office uses permitted in commercially- and industrially-designated areas, whereas the Land Use Element only accounts for office uses within office-designated areas. In addition, different methodologies were employed in estimating office square footage in the Land Use and Economic Development Elements. The total office uses within the City can be separated into three categories: medical, bank and other office. Medical space represents establishments providing medical, dental or other health care. Bank space refers to all banking facilities within the City. The "other" office category represents all other office uses not medically- or bank-related. A summary of existing occupied office space is as follows:

Medical	560,267 sq.ft.
Bank	135,416 sq.ft.
Other Office	1,176,297 sq.ft.
Total	1,871,980 sq.ft.

Commercial office uses in Garden Grove are concentrated at the intersection of Harbor Boulevard and Chapman Avenue at the Plaza Alicante, the intersection of Euclid Avenue and Garden Grove Boulevard at the Civic Center, and near Brookhurst Street and Garden Grove Boulevard at Greenbrier Plaza.

The Plaza Alicante is the major regional serving office facility in the City. It has a total of 210,000 square feet with 28,000 feet currently vacant for a 13% vacancy rate.

Smaller regional-serving office centers are located in the vicinity of Euclid Street and Garden Grove Boulevard, and at Brookhurst Street and Garden Grove Boulevard. These have vacancy rates of 23% and 45%, respectively.

The rest of the office market in the City is local serving, garden office space. There is a concentration of local serving garden office buildings on Brookhurst Street, north of Garden Grove Boulevard and south of the retail areas near Chapman Avenue. There are other local serving office buildings along Garden Grove Boulevard and in the vicinity of SR-22. Brokers estimate the city-wide vacancy rate for the local serving, garden office building market to be 22% to 25%.

Garden Grove is most oriented to the local serving office market. Market softness will continue for the foreseeable future. Areas of growth will probably be most prevalent along the Garden Grove Boulevard corridor. Local serving office uses could be an adjunct of retail/residential mixed use developments that might occur in the Euclid/Garden Grove Boulevard area.

Total Occupied Industrial and R&D is Estimated to Total 12,164,184 Square Feet

Research and Development/Industrial Land Uses

Total occupied research and development (R&D) space in the City is calculated to be 1,029,778 square feet and the total occupied industrial space is estimated to be 11,134,406 square feet. It should be noted that these figures do not account for public sector industrial uses and vacancies. The figures identified in the Land Use Element included not only public sector industrial uses and vacancies, but also any office and/or commercial uses in industrially-designated areas (due to the difference in methodologies used in calculating existing square footage of non-residential land use in the Land Use and Economic Development Element).

Land uses designated as R&D contain a mix of retail, office and industrial space. The total existing inventory of R&D space is calculated to be 1,093,036 square feet, as identified by use type below:

Retail	157,663 sq.ft.
Office	181,036 sq.ft.
Industrial	754,337 sq.ft.
Total	1,093,036 sq.ft.

The industrial land uses of the City of Garden Grove are predominantly located in the northwest corner of the City in the Central Industrial Area.

Vacancy Rate of Industrial Buildings Estimated to be 13.05% in Garden Grove, Compared to 13.29% County-wide

The current vacancy rate among industrial buildings in Garden Grove is 13.05% according to industrial brokers. The industrial vacancy rate for Orange County is 13.29% currently. The City is thus performing, on average, as well as other cities in the County. The major challenge facing the City is the same as that facing the rest of southern California: the exodus of the manufacturing industry from southern California. The factors cited by Orange County brokers are those over which an individual municipality has little, if any control: air quality regulations, water quality regulations, high workers compensation insurance premiums and the “high cost of doing business” in general throughout southern California. To the extent that these factors are persistent conditions, even with cyclical recovery from the recession, the business exodus is likely to continue.

Industrial Area has Several Market Strengths

Garden Grove is recognized as having slightly more buildings in the 40,000-square foot and above category than other industrial areas of comparable size in west Orange County. It is not yet clear whether this larger than average product size will provide a comparative advantage over competitive sites. Areas of market strength for Garden Grove’s industrial area are its relatively good freeway access, its relative proximity to the Port of Long Beach and the generally good design and maintenance of the buildings and landscaping in the industrial area. While promotional efforts cannot reverse negative market trends, other cities, notably Anaheim, promote themselves

*Redevelopment Plan
Proposes a Variety of
Improvements*

to the business, development and the brokerage community as “committed to business” and desirous of business locating or remaining in their jurisdiction. As a competitively defensive move, Garden Grove should make certain that the positive features of the City are communicated to the business and brokerage community and that the City take affirmative steps, such as the Business Retention Program currently underway, to project a “pro-business” image.

Redevelopment

The City’s Redevelopment Plan, adopted in July, 1992, identifies numerous improvements and/or facilities for inclusion into the 1,909 acres of Redevelopment Plan Project Areas. The following provides a brief summary of these improvements:

- In the Civic Center, construct a new City Hall and parking structure, rehabilitate the Don Wash Auditorium, and expand Heritage Park.
- In the Community Center area, rehabilitate the GEM Theater and Amphitheater, construct a parking structure, and continue the development of the area.
- In the area of public infrastructure improvements, a number of traffic and circulation improvements, construction of storm drains, undergrounding of utilities, improvement or completion of water and wastewater systems, and installation of street furniture and landscaping in targeted areas.

4.3 MUNICIPAL REVENUES AND COSTS

Municipal Revenues

*Single Largest On-Going
Revenue Source is the
City's Water Revenue Fund*

The City’s budget for fiscal year (FY) 1993-1994 shows total City revenues of approximately \$172 million. The single largest on-going revenue source is income generated from the City’s Water Revenue Fund. The Water Revenue Fund accounted for approximately \$13 million, or approximately 8%, of the total revenue generated in FY 1993-1994. The second largest recurring income source is the Sales and Use Tax which generated nearly \$13 million for the City. Additionally, significant sources of revenue were generated by the Redevelopment Agency's Special Fund 81 and the Housing Authority Fund, which generated \$8.6 million and \$12 million, respectively.

Other major sources of income during FY 1993-1994 were a result of one-time revenues relating to bonds. The largest one-time revenue source for the City resulted from a 1993 bond issue, which generated \$67 million, or

*Specific Projects Resulted
in Unusual One-Time
Expenditures for FY 1993-
1994*

approximately 3%, of all revenue in the City. The second largest revenue source was income received from Water Revenue Bonds, which generated \$16 million, or approximately 9%, of the total revenue for the City in FY 1993-1994.

Municipal Costs

The City's budget for FY 1993-1994 indicates total municipal expenditures of approximately \$179 million. The single largest municipal expenditure was attributed to the Community Development Department, which accounted for nearly \$68 million, or approximately 38%, of the total expenditures incurred in FY 1993-1994. However, the majority of costs attributed to the Community Development Department were attributed to the construction of specific projects, and are not expected to recur on an annual basis. The City's previous budget estimate of approximately \$21 million (in FY 1992-1993) is considered reflective of a more "typical" expenditure level for Community Development. Additional cost categories which accounted for significant amounts of expenditures in the City's budget were Public Services and Law Enforcement which generated costs of approximately \$22 million and \$20 million, respectively. These cost categories account for 12% and 11%, respectively, of the City's total budget for FY 1993-1994.

Net Fiscal Impact

*Net Fiscal Impact
Represented by Normal,
On-Going Costs and
Revenues is a Surplus of
Approximately \$4.7
Million, Increasing to
Approximately \$8.9
Million in the Year 2020*

Under the City's budget for FY 1993-1994, expenditures exceed revenues by approximately \$7.1 million. This number reflects total expenditures of \$179 million and total revenues of approximately \$172 million. These figures includes both annually recurring costs and revenues as well as one-time capital expenditures. However, it should be noted that the negative net fiscal impact reflects unusually high costs incurred by the Community Development Department of approximately \$68 million. Other extraordinary items in the budget are the revenue received from a 1993 Bond Construction which generated approximately \$67 million during FY 1993-1994. Therefore, the net fiscal impact represented by normal, on-going costs and revenues is a surplus of approximately \$4.7 million and increases to approximately \$8.9 million in the year 2020. The net fiscal impact, in constant 1995 dollars, is summarized below:

	Current Year	Year 2020
Total Revenue	88,264,000	127,818,606
Total Expenses	83,541,600	118,931,635
Net Fiscal Impact	4,722,400	8,886,971

*It is Important to Correct
the Resident Retail
Leakage Currently
Experienced in Some
Retail Sectors*

6. GOALS AND POLICIES

ISSUE

Residents and business owners alike are acutely aware of the need for enhanced economic development within the City. Preliminary analysis suggests that some categories of resident retail demand are not currently being met within the City resulting in a “leakage” of revenues outside the City.

GOAL

1. The City’s market potential maximized, in order to enhance and retain shopping opportunities to serve the population, increase sales and transient occupancy tax revenue in the City, as well as provide new employment opportunities.

POLICIES

The City should:

- 1.1 Initiate strategies to market, attract, and/or retain retail, commercial and industrial activity areas. These strategies should, at a minimum, address the amount and location of land designated for such uses, target areas and tools necessary to implement such strategies.
- 1.2 Identify and pursue categories of resident retail demand which are not being met within the City.
- 1.3 Develop a comprehensive economic development program and initiate strategies to retain existing businesses, as well as markets, and attract new office, commercial and industrial activity.
- 1.4 Establish a marketing and business retention/attraction program to effectively compete with neighboring cities in attracting regional businesses.
- 1.5 Identify unique economic opportunities, such as niche markets, that will allow the City to capitalize on the regions tourism industry and cultural diversity.
- 1.6 Fully capitalize on potential physical and market linkages between land uses.
- 1.7 Continue to enhance the City’s public relations/education program in order to improve communications through the business community and the City.

Fiscal Health

- 1.8 Maximize secondary industrial activity providing services to existing industrial and commercial establishments in the City.
- 1.9 Continue public improvements throughout the City and redevelopment project areas.
- 1.10 Provide rehabilitation assistance in targeted commercial districts to enable the upgrading of commercial properties.
- 1.11 Consider the implementation of a Property Maintenance Ordinance or other means to maintain abandoned commercial buildings.

ISSUE

It is imperative that the City provide for fiscal stability through the retention of existing, and attraction of new, businesses within the community. Enhanced fiscal stability will result in increased employment opportunities, as well as expanded retail shopping and service opportunities.

GOAL

2. Generate cumulative growth that provides net fiscal gains to the City.

POLICIES

The City should:

- 2.1 Consider fiscal impact analyses as part of the environmental review process.
- 2.2 Strive for the cost of services to be balanced with the revenues generated on a recurring basis.
- 2.3 Annually document the fiscal health of the community and focus on major public/private economic achievements.
- 2.4 Prioritize capital improvement investments based on the potential fiscal revenue stream which will be generated by the development related to the capital improvements.
- 2.5 Consider adjusting the transient occupancy tax (T.O.T.) to optimize fund generation.

Related goals and policies are found in the Growth Management Element.

ISSUE

Retail and office commercial activity is an important component in the economic development of the community. Existing commercial corridors and clusters must be maintained and enhanced in order to retain the economic viability of these areas. Retail retention is also vital in recapturing the current leakage observed for specific retail uses. In addition, economically sound commercial concentrations for community shopping, employment, and tax revenue opportunities must be provided.

GOAL

3. Retain existing, and attract new, retail development to meet the needs of the community, draw consumers, and enhance sales tax revenues for the City.

POLICIES

The City should:

- 3.1 Allocate sufficient amounts of land to accommodate neighborhood and community retail services based on demand.
- 3.2 Monitor the conditions and status of older shopping centers and smaller, underutilized commercially zoned parcels.
- 3.3 Market Garden Grove to users/stores for which Garden Grove residents currently travel outside the City.
- 3.4 Enhance programs to encourage businesses to remain in the City.
- 3.5 Provide assistance to local businesses with improvement programs through the commercial revitalization program.

GOAL

4. Encourage the development of office space to meet the needs of the community and to provide jobs for local residents.

POLICIES

The City should:

- 4.1 Consider expansion of parking capacity and provision for second-floor office space over retail, to attract potential growth in local-serving office space.
- 4.2 Develop and implement programs to attract new regional office users.

Tourism is An Important Element in this Area of the County

- 4.3 Develop programs that encourage home-based businesses seeking expansion or new, small size, start up businesses to utilize incubator space type of office spaces within the City.

ISSUE

Tourism is an important industry in Orange County. Disneyland, which is immediately adjacent to Garden Grove, is a primary tourist attraction; the City has not fully capitalized on it's proximity to Disneyland. The potential expansion of this commercial recreational amenity offers new opportunities to the City of Garden Grove.

GOAL

5. Enhanced opportunities for development of tourism-related businesses.

POLICIES

The City should:

- 5.1 Focus on the creation of increased visitor demand on the hotel and restaurant facilities in the City.
- 5.2 Develop effective marketing strategies in order to draw increased numbers of tourists and business persons from regional areas into the City and increase the demand for hotel and restaurant facilities.
- 5.3 Investigate potential nighttime entertainment activities which would encourage tourists and business oriented travelers to remain in the City of Garden Grove for the duration of their visit (i.e., theater events, restaurants, movie theaters, commercial recreation opportunities, etc.).
- 5.4 Explore non-traditional and international marketing approaches to attract foreign tourism.
- 5.5 Pursue opportunities for a unique theme park that takes advantage of potential international commerce and cultural activities.

ISSUE

Industrial Uses Are Important to Fiscal Health of the City

The industrial land use base is an important component in the fiscal health of the City. Potential growth in industrial activity is equally dependent on retaining current industrial firms as attracting new firms. As other cities and

states compete for new industry, it is critical that Garden Grove be able to retain if not expand its current industrial base. Both existing and new firms must be made aware of the City's ability to satisfy their needs.

GOAL

6. Maintain and stabilize the existing industrial base and enhance opportunities for the future industrial base.

POLICIES

The City should:

- 6.1 Continue to enhance programs which work toward retaining industrial firms in Garden Grove.
- 6.2 Encourage service industries to provide support services to the industrial base.
- 6.3 Support a local labor force with employee training/re-training programs and employer-staffed programs to provide the skill requirements of current and prospective employers.
- 6.4 Continue to monitor the availability of vacant facilities or land zoned for industrial purposes in order to provide information to firms in Garden Grove.
- 6.5 Support a diversity of industries.
- 6.6 Monitor the amount of non-industrial activity in industrial areas.

ISSUE

While the majority of development in Garden Grove is in good physical condition, the City does contain a number of residential and commercial structures that are in need of rehabilitation or replacement.

GOAL

7. Revitalize older commercial and residential uses and properties.

POLICIES

The City should:

- 7.1 Encourage and continue the use of redevelopment activities in the Community Center, Harbor Corridor, Garden Grove Boulevard, Brookhurst/Chapman areas, as well as other Redevelopment Project Areas.

- 7.2 Support the provision of incentives for private development and redevelopment (as appropriate), joint public-private partnerships, and public improvements through redevelopment actions.
- 7.3 Encourage vigorous enforcement of City codes, including building, safety, and housing codes, to promote property maintenance.

Related goals and policies are found in the Housing and Community Design Elements.

◆ APPENDIX A

Fiscal Impact Analysis

Four alternatives are identified for evaluation in the General Plan:

- Alternative A - Existing Plan,
- Alternative B - Proposed Plan (the adopted Land Use Plan),
- Alternative C - Modified Proposed Plan 1, and
- Alternative D - Modified Proposed Plan 2.

The analysis evaluated the fiscal impact on the City of four alternative buildout scenarios referred to as Alternatives A through D. Alternative A is considered to be the existing conditions and was used as the base for the fiscal impact discussed above. Table 1, *Summary of Net Fiscal Impact in the Year 2020*, shows the net fiscal impact of each alternative development scenario.

*Alternatives Show A
Surplus Ranging From
Approximately \$9 to \$9.8
Million*

As shown in Table 1, under Alternatives B, C and D, the positive net fiscal impact to the City is greater than the surplus observed under Alternative A. The highest positive net fiscal impact results under Alternative C, which shows a surplus of approximately \$9.8 million or nearly \$973,000 higher than in Alternative A. Alternative D has the second highest positive net fiscal impact of approximately \$9.3 million, and Alternative B shows a surplus of approximately \$9 million to the City. (The estimated fiscal impacts assume that buildout, under all scenarios, will be achieved by the year 2020.)

Under the existing conditions, the total number of dwelling units is anticipated to increase by nearly 10% to 50,914 units. However, the City will reduce the number of single-family units by 1,140 units while adding approximately 5,649 units of multi-family units by the year 2020. Additionally, the most dramatic development will occur in retail space within the City. It is anticipated that retail space will increase by approximately 190% to 12,389,100 square feet over the next 25 years. Table 2, *Development Comparison of Alternatives A, B, C and D*, summarizes the development projected under each of the development scenarios.

As shown on Table 2, under Alternatives B, C and D, the amount of commercial space increases compared to the existing conditions in the City. The total number of dwelling units projected under Alternatives B and C decreases compared to the City's existing development, whereas residential development increases slightly under Alternative D.

Table 3, *Comparison of Fiscal Impacts Associated with Alternatives A, B, C and D*, provides a summary of the fiscal impacts associated with each development scenario. As shown on Table 3, each alternative will result in a positive net fiscal impact (surplus of funds) to the City in year 2020, this surplus ranges from \$8,886,971 to \$9,860,880 between the alternatives, a difference of approximately 11%. Alternative C provides the most positive fiscal impact, followed by Alternatives D and B. Alternative A represents the minimum positive fiscal impact.

TABLE 1
SUMMARY OF NET FISCAL IMPACT IN THE YEAR 2020

	Alternative A	Alternative B	Alternative C	Alternative D
Fiscal Revenues	\$127,818,606	\$128,383,910	\$130,887,580	\$130,179,497
Fiscal Costs	\$118,931,635	\$119,368,520	\$121,026,700	\$120,918,369
Net Fiscal Impact	\$8,886,971	\$9,015,390	\$9,860,880	\$9,261,129

GARDEN GROVE GENERAL PLAN

◆ COMMUNITY DESIGN

It is the desire of Garden Grove citizens to create, foster and enhance the appearance of their City, and its image within the Region.

Although the Community Design Element is Not Required by State Law, it is Important to Garden Grove

1. INTRODUCTION

The Community Design Element, is not a mandatory element required by State planning law. The City has added this Element to its General Plan because the appearance of the City is considered important by Garden Grove residents.

In the City's Community Economic Development Strategy, adopted in 1981, and the Community Improvement Goals and Strategies, adopted in 1989, a positive image for the City is a common goal. Both documents recognize the importance of creating and fostering a positive visual image within the community.

The importance of the City's image was echoed at the Community Forums for the General Plan held in February and November, 1993. Attendees at the Forum indicated that enhancing the City's image and the desirability of Garden Grove is the most important issue facing the community.

Responses to the 1993 Community Survey for the General Plan, conducted in the summer of 1993, once again echoed the importance of the City's appearance to the people of Garden Grove. Approximately 94% of the survey respondents indicated that the appearance of the City was important, of this, 54% felt it was very important. This concern was repeated in responses and comments throughout the survey; for example, in responses to questions which inquired about desired changes to four subareas of the City (Harbor Corridor, Brookhurst/Chapman, Garden Grove Boulevard and Community Center), the most desired change in each of these sub-areas was "improved appearance."

Forum participants and survey respondents also identified aspects of the City which perceptibly detract from the community's image, including: graffiti, lack of property maintenance, and the need for neighborhood preservation.

With this understanding of the concerns related to community image as expressed by the citizens of Garden Grove, as well as the community's leaders, the Community Design Element has been written. Special needs which are focused upon in this element include: 1) the protection and enhancement of the City's existing aesthetic attributes, 2) the promotion of community design, through the use of architectural standards, landscape and streetscape, amenities, and a variety of other design techniques, as well as involvement by the community's citizens, 3) the harmonious incorporation of new development into existing public and private development, and 4) the preservation and enhancement of the existing neighborhoods.

2. AUTHORITY FOR THE ELEMENT

Although this Element is not a mandatory element required by State planning law per se, Government Code Section 65303 states that local governments may adopt "... any other elements or address any other subjects which ... relate to the physical development of the county or city." Such "other" elements are called "optional" elements. Upon adoption, an optional element becomes an integral part of the general plan. It has the same force and effect as the mandatory elements and must be consistent with the other elements of the plan. In turn, zoning, subdivisions, public works, and specific plans must be consistent with all optional elements.

3. RELATIONSHIP TO OTHER ELEMENTS

The intent of community design is to define the various requirements relating to the visual image of the community. This Element thereby, relates most directly to the Land Use, Circulation and Infrastructure, Housing, Open Space/Conservation and the Parks, Recreation and Cultural Activities Elements. This Element also relates to the other elements, but in a less direct manner. The Community Element relates to the other elements as described below:

- The Community Design Element is most strongly tied to the Land Use Element in that specific design criteria are set forth, including: guidelines related to the physical characteristics of each land use; and secondly, guidelines for various design relationships between different types of land uses. While the Land Use Element establishes the general type, location and amount of each land use, the Community Design Element determines the more detailed physical or visual characteristics of each use.
- This Element strives to tie in the circulation and open space networks as unifying features throughout the community, thereby relating directly to the Circulation and Infrastructure and Open Space/Conservation Elements.
- The preservation of existing residential neighborhoods is a primary focus of the Community Design Element, thereby providing a direct correlation with the Housing Element.
- Defensible space design practices have been considered in the development of this Element, ensuring consistency between the Community Design and Safety Elements.

Components of an Urban Setting

- Design principles such as setbacks and incorporation of landscape treatments along the community's street assist in the attenuation of noise, establishing a correlation between this Element and the Noise Element.
- This Element relates to the Economic Development Element by recommending fiscally sensitive programs and activities which can be readily assimilated into existing programs.
- The Community Design Element strives to ensure that future development enhances existing development within the community, as does the Growth Management Element.
- Landscaping within the community is a natural means of contributing to improved air quality. The landscape design principles included in this element therefore support the goals and policies of the Air Quality Element.
- Parks provide important visual relief and contribute to the community character with their mature landscaping, thereby establishing an important relationship between the Community Design and Parks, Recreation and Cultural Activities Elements.

4. SUMMARY OF FINDINGS

Urban design and visual appearance play an important role in defining a community's image and character. There are a number of elements which can strongly influence this image and character, included among these are: entries, signage, streetscape treatments, art in public places, landscaping, as well as architecture and site features (i.e., site layout, design, etc.). Each of these elements can be presented in any number of ways depending upon purpose, location, functionality, and architectural character of the area.

In addition to the community features described above, special "districts" or landmarks offer unique identity to a community, special "districts" in Garden Grove include, but are not limited to:

- Main Street,
- Community Center,
- Harbor Corridor,
- Garden Grove Boulevard, and
- Brookhurst/Chapman area.

Landmarks or special interest features within the City include, but are not limited to:

- Crystal Cathedral,
- Plaza Alicante, and
- Stanley Ranch Museum and Heritage Park.

Parks are also to be considered special features, because they provide visual relief in an urbanized setting, such as Garden Grove.

4.1 Community Design Features

The following discussion is a general overview of the City of Garden Grove focusing on the design elements of entries, signage, streetscape treatments, art, landscaping, as well as architecture and site features.

4.1.1 Entries

There are three types of entries within the City of Garden Grove: Primary Entries, Secondary Entries and Special District Entries. Entries can provide an important visual image as residents and visitors enter the community. Other than median treatments and monument or pole signs near these entries, there are no consistent entry characteristics present; furthermore, not all entries have any form of signage. Although the entries to the City are physically dissimilar, it is important that they all project a continuity that is consistent with an image, character and quality established for the City.

Primary and Secondary Entries have been identified along the City's boundaries and SR-22 off-ramps at those locales where the ADT exceeds 35,000 and 20,000 vehicles, respectively; these entries are shown on Exhibit 1, *Community Design Structure*. The City typically uses a monument sign in the roadway median to announce the entry to the City at the Primary Entry locations and a white curbside pole sign at Secondary Entry locations, as shown on Exhibit 2, *Existing Community Signage*.

Special District Entries identify the visitors arrival to a specific area. Special District Entries in the City of Garden Grove are found as one enters the Community Center area and the Central Industrial District, as shown on Exhibit 1. As shown on Exhibit 2, the special district monument signs are similar to the monument signs announcing entry into Garden Grove.

Other special districts or community landmarks, such as the Crystal Cathedral, are announced by white curbside pole signs similar to those found at many of the Secondary Entries, as shown on Exhibit 2.






There are Six Primary and Nine Secondary Entries into Garden Grove

Special District Entry Signage

GARDEN GROVE

GENERAL PLAN



-  Primary Entry
-  Secondary Entry
-  Special District Entry Monumentation Signage
-  Existing Monumentation Signage
-  Special Median Treatment





1



2



3



4

- 1 Typical Entry Monument Sign** - Found in median islands at major entries to City.
- 2 Secondary Entry and Informational / Directional Signs** - Curbside pole signs found throughout the City.
- 3 Special District Signage** - Similar to the Entry Monument signs, these announce the visitors arrival to the Community Center area. Banners suspended from banner poles in the median from these monument signs into the heart of the Community Center area are a second phase.
- 4 Street Signs** - Bear the distinctive blue Garden Grove emblem.



Existing Community Signage

4.1.2 Signage

City Signage

Virtually all City of Garden Grove signage is easily recognizable because it bears the distinctive blue emblem and logo of the City, as shown on Exhibit

2. Signage constructed and maintained by the City includes:

- Monument Signs - Found at entries to the City or to special districts within the City, these are approximately three to four feet in height and six to eight feet long, and made of a tan, smooth-finished concrete.
- Informational and/or Directional Signs - These identify landmark features, service organization meeting locations, or like places of interest, and are white curbside pole signs.
- Street Signs - These are easily recognizable within Garden Grove, they are white with the distinctive blue Garden Grove emblem.
- Banner Signs - These are found in the vicinity of Euclid Street and Garden Grove Boulevard, and periodically along Garden Grove Boulevard. Banners displayed in the City have traditionally been used for advertising special events such as the Strawberry Festival, Shakespeare Festival, and Korean Festival, or for seasonal celebrations, such as Christmas.

Commercial Signage

*Commercial Signage
Varies*

Although Article VII of the Municipal Code addresses signage within the City, the proliferation of signs in commercial developments and the variety of colors and shapes, sizes, languages and locations have, in general, created a visual blight along the City's commercial corridors. Signage within the commercial community varies substantially from the use of multiple pole signs for a single commercial center and painted, front lit signs, to uniformly designed "can" signs mounted on building facades, and single standing entry signs which are architecturally coordinated with the center itself.

Graffiti

Graffiti has become a major community concern. The City of Garden Grove spends approximately \$100,000 annually for the removal of graffiti, and relies, in large part, on the efforts of volunteers. To address this concern the City of Garden Grove:

- Has adopted an Ordinance addressing graffiti and its removal;
- Sponsors Project GO (Graffiti Off), a graffiti removal program; and

- Sponsors volunteer clean-up days, supplying paint and brushes to volunteers.

In addition, the Garden Grove Unified School District removes graffiti from school properties and the City's Park and Water Department maintenance crews remove graffiti at City-owned parks and on water tanks.

4.1.3 Streetscape Treatments

Streetscape refers to that area along the street visible to the passerby. Streetscape treatments encompass a wide array of components, including landscape and hardscape (e.g., planters, planter grates, rocks, concrete, etc.), textured or enhanced paving, special median treatments, special light fixtures, and street furniture.

The layout and treatment of the City's circulation system and the image presented to those traveling through the community is critical in how the area is perceived. The most highly traveled corridors should have a cohesive and consistent character.

Currently along the major corridors, there are a variety of images presented to the viewer as shown on Exhibit 3, *Existing Streetscapes*, including:

- Lack of a cohesive, well-designed streetscape treatment;
- Scenes of primarily buildings, parking lots, and walls with very little relief provided by landscaping;
- Unobscured views into vast and overwhelming areas of parking;
- Signage in all shapes, sizes, locations, languages and colors; and
- Lack of a pedestrian environment.

Lack of Continuity Among City Streetscapes

This lack of continuity creates a sense of disorganization and reinforces the City's lack of cohesiveness and quality. Features such as landscape, hardscape, lighting, signage, parking and landscape setbacks, should be unified and of a consistent quality. The introduction of residential uses adjacent to primary arterials can offer interest and scale along the streetscene, if the proper buffers and edges are created.

Collector streets also lack a unified appearance. A unified design treatment that is consistent with the rest of an area, to reinforce the image and character of the neighborhood, should be encouraged in the neighborhoods of the City. In addition, parking of recreational vehicles along the City's streets detracts from the beauty of the landscaped streetscape scene, particularly in older residential neighborhoods with mature landscaping.

GARDEN GROVE GENERAL PLAN



1



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3

- 1 Signage in all shapes, sizes, locations, and colors.
- 2 Residential uses back up onto major arterials;
- 3 in some cases the rear yard wall directly abuts the back of the curb.
- 4 Lack of landscape buffers along the edge of commercial developments allow unobscured views of asphalt and automobile grills.
- 5 Landscaped medians and low-lying walls with landscaping along the roadway edge, create visual interest along some of the City's streets. However, often times streetscape treatments vary from segment to segment along the same roadway.



4



5



Existing Streetscapes

Landscaping Along Roadways

As illustrated on Exhibit 3, landscaping and street trees vary significantly along the City's streets. In some areas, street trees are noticeably absent, with only a concrete sidewalk between the back of the curb and a masonry wall which separates the adjacent land use from the roadway. In other areas, there are tree wells flush with the concrete sidewalk. In still other areas, particularly in residential areas, there is a grass parkway between the back of the curb and sidewalk which may or may not contain trees.

Street Furniture

Street furniture is minimal along the streets of Garden Grove, bus shelters and/or benches are typical of any Orange County community. Trash receptacles are found sprinkled throughout the City along major arterials. Bollards which separate vehicular and pedestrian access can be found in certain commercial areas, along the OCTA right-of-way, and along Main Street. In general, light fixtures along the City's streets are typical of any community, however, some areas of the City have special lighting treatments, i.e., Main Street, the Civic Center, etc.

Overhead Lines

The City has undergrounded utility lines in numerous areas within the City, as seen on Exhibit 3, however, not all utilities have been undergrounded. These overhead lines tend to add to the discontinuity along the City's streets.

4.1.4 Art in Public Places

The Art in Public Places Program, funded by development fees, has placed two sculptures: one, at the corner of Harbor and Garden Grove Boulevards, and the second, at the corner of Euclid Street and Acacia Parkway.

4.1.5 Landscaping

Plant Materials

Landscaping in the City varies, the City has identified specific trees, shrubs, and groundcover for planting in public areas. Trees have been specified for the following uses and/or areas by the City's Public Services Department:

- Street trees - These are the trees found in the tree well "cut outs" along the sidewalks in Garden Grove.
- Median trees - Trees found within the medians along the roadways in the City.
- Frontage and Greenbelt trees - Those trees found in public landscaped areas, referred to as frontages, outside the roadway bed.

Landscaping in Residential Areas

- Residential Street trees - Street trees which line the residential streets in the City, found in the parkway area between the back of curb and the sidewalk.

In addition, the City has specified tree species for parks, the Civic Center Complex, Fire Stations, libraries, the Municipal Service Center, and water well sites. Appendix A, *City Trees*, identifies the tree species and their uses for the public landscaped areas of the City. Appendix B, *Shrubs and Groundcover for Public Landscaped Areas*, identifies landscape species other than trees found in publicly landscaped areas.

Landscaping in the residential areas of the City is generally mature due to the length of time most of the residential structures have been standing. In some neighborhoods there are no sidewalks so that landscaping extends out to the back of the curb face. A rural, open feeling is created in many single-family residential neighborhoods due to the mature landscaping, wide open lawns and deep setbacks from the house to the street, as reflected in Exhibit 4, *Typical Single-Family Residential Neighborhoods*.

In newer single-family residential neighborhoods, there is often a noticeable lack of mature tree plantings.

The older multi-family neighborhoods typically appear spartan with little landscaping. In many of these areas little more than lawns and a few shrubs can be seen. Mature trees found in these older multi-family areas are usually part of the City's residential street tree program. A partially enclosed feeling is the result of the distribution of open space and vegetation around the structures, as reflected on Exhibit 5, *Typical Multi-Family Residential Neighborhoods*.

Newer multi-family areas offer much more landscaping as can be seen in Exhibit 5. These areas, with their mature trees tend to create a more rural feeling, with more aesthetic appeal and pedestrian scale.

Those residential neighborhoods in Garden Grove which are not currently part of the City's residential street tree program should be incorporated into the program.

Although Article IV of the City's Municipal Code addresses landscaping, landscaping in commercial and industrial areas varies dramatically and seems to correlate with the age of the development, as does the architectural treatment, as illustrated on Exhibits 6, *Typical Commercial Development*, and 7, *Typical Industrial Development*. Newer developments incorporate landscaping adjacent to the buildings, within the parking area, and along the street frontage; buffering of the parking area with the use of berms, planters, and landscaping is also typical of newer developments. These landscape buffers also help define the roadway edges. Hardscape treatments in newer

Landscaping in Commercial and Industrial Areas



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- 1 Lack of sidewalks, wide open lawns, mature landscaping, and deep setbacks create a rural open feeling in many of the City's single-family residential neighborhoods.
- 2 Most of the homes from the 1940's and early 1950's are reminiscent of the Wartime Tract architectural style, a predecessor to the California Ranch style. This architectural style is typified as a small, one-story building set on a concrete perimeter foundation with a pitched roof.
- 3 Most of the City's housing from the 1950's and 1960's was built in the California Ranch architectural style, typified by rafter tails and more building articulation than the Wartime Tract.
- 4 Some single-family homes have been substantially remodeled, increasing the size of the original structure significantly and creating more visual interest with a variety of facade treatments.





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- 1 Older multi-family residential neighborhoods typically consist of one or two story buildings, set back equidistant from the street, in a row.
- 2 Landscaping is minimal, dominated by lawns and few shrubs; residential street trees offer visual relief. Buildings are box-like shapes, with little, if any, building articulation visible from the street. No private outdoor spaces, such as fenced patios or balconies, are found in these older areas.
- 3 Newer multi-family neighborhoods offer more visual interest and pedestrian scale to the visitor or resident. Landscaping is much more extensive in the newer multi-family residential areas than the older areas. Buildings are more interesting and less "boxy" with cantilevered balconies, a variety of window treatments, roof overhangs, thematic architecture, and more interesting roof treatments.
- 4
- 5



GARDEN GROVE GENERAL PLAN



- 1 Building articulation, clustered development, and free standing buildings along the street frontage are found in most new commercial development.
- 2
- 3 Landscaped setbacks along the street, landscaped entries and parking lot landscaping increase the visual appeal and pedestrian friendliness of a commercial center. The use of porticos, colonnades, towers, varied roof lines, colors, and a myriad of facade treatments create an interesting setting augmented by an appropriate use of awnings, signage, space frames and like features.



- 4 Older commercial development is typified by a lack of landscaping, "sea" of asphalt, inconsistent architectural and facade treatments, and inconsistent signage. Most older buildings have flat surfaces with a uniform setback from the street.
- 5
- 6



Typical Commercial Development



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- 1 Within the Central Industrial area, lawns, shrubs and a wide variety of trees dominate the landscape, enhancing the area's appeal. Buildings are well articulated and use a blend of glass and concrete, as well as other materials. Parking areas are usually screened or located behind the buildings. Signage is relatively minimal.
- 2
- 3 Asphalt parking, or the entry to a building, typically extend out to the sidewalk in the older industrial areas. Landscaping, if any, is nonexistent in these areas; utility lines may or may not be located underground. Parking, storage and service bays, and similar uses are usually visible. Buildings themselves usually lack architectural interest, and typically are not well articulated. Signage gives the appearance of being "disorganized".
- 4



*Typical Single-Family
Residential Architecture*

*Typical Multi-Family
Residential Architecture*

areas include planters, enhanced paving and walkways, bollards, and street furniture (i.e., benches, trash receptacles, etc.).

Landscaping in the older commercial and industrial areas is typically minimized, with asphalt parking areas extending out to the sidewalk along the street frontage, as shown on Exhibit 6. The lack of landscaped setbacks create an unsightly edge treatment, due to the visual intrusion of a “sea” of asphalt and automobile grills. The lack of landscaping and appropriate hardscape treatments hinders the pedestrian friendliness and scale of these areas. Landscape treatments would help to define scale, and reduce the large unobstructed views into loading areas, parking lots and storage areas of these older developments.

4.2 Architecture and Site Features

The City of Garden Grove has not affiliated itself with any distinctive architectural style(s). Single-family residential architecture typically varies from California bungalow, to the Wartime Tract and California Ranch styles; although the latter two dominate the City’s single-family neighborhoods. These styles are illustrated on Exhibit 4, *Typical Single-Family Residential Neighborhoods*. In general, homes of the California bungalow and Wartime Tract styles were built in the 1930s and 1940s, respectively. Homes built in the California Ranch style were typically built in the 1950s and 1960s.

Deep setbacks typify most of Garden Grove’s single-family neighborhoods. Most of these neighborhoods have an open feeling due to the pattern established by the spaciousness of the lot layout, building mass and open, wide lawns. Some of the original neighborhoods in the City offer a much more dense feeling due to the relatively small sized lots which are typically 50 by 150 feet. Some of the homes in these original neighborhoods are in desperate disrepair.

In general, there is not a consistent or identifiable treatment of edge conditions where residential uses interface along major arterials or abut other land uses (e.g., single-family residential adjacent to commercial). The introduction of a consistent design treatment that respects the functional and visual requirements of each use would help establish a more positive image throughout the community.

Much of Garden Grove’s multi-family housing stock is older. Architecturally, these buildings consist of: two stories; flat roofs; little if any, building articulation; wrought iron railings; no private exterior spaces, such as patios and balconies; and few, if any, windows face onto the street, often windows face onto common open space areas.

*Architecture in
Commercial Areas*

A sense of enclosure is felt in many of these areas, due in large part to buildings facing onto buildings with little, if any, visual relief in between. The uniformity created by these rows of buildings could be broken up by fenced private patios, mature landscaping, meandering walkways, building articulation, or other amenities to create visual interest.

Newer multi-family developments generally include: two or more stories; varied roof lines; varied facade treatments; more building articulation; private exterior spaces such as fenced patios or balconies; and windows which may, or may not face the street. In addition, a variety of materials have been incorporated into the design of the newer developments (i.e., stucco, wood trim, tile roof accents, use of enhanced paving, etc.).

Exhibit 5, *Typical Multi-Family Residential Neighborhoods*, highlights some of the differences between the older and the newer multi-family developments.

Architecture in the commercial areas of the City varies dramatically, in general, the newer commercial areas have a “theme” orientation, whether it be a traditional California Mission architectural style, or a theme created through the use of space frames and color.

In newer commercial developments, buildings are articulated through the use of towers, colonnades, porticos, and varied roof lines. In addition, awnings, tile work, and the use of space frames add visual interest. Signage tends to be more uniform on the newer commercial buildings. Exhibit 6, *Typical Commercial Development*, illustrates some of the differences between the typical newer and older commercial developments found in the City. It should be noted that the commercial centers in the City are not always compatible with the scale of adjacent residential neighborhoods, and appropriate buffers are necessary.

The larger, traditional commercial shopping centers in the City have greater parcel depth which gives them flexibility in accommodating building and parking layouts. The newer centers typically consist of a cluster(s) of one and two-story commercial buildings, creating a distinct atmosphere because of their architecture, layout, and building mass. The newer centers have consistent architectural, landscape, and signage treatments, as well as pedestrian walkways and plazas.

The older commercial areas are typically one story with a “shallow” second story as part of the building facade. These older developments have little, if any, building articulation, with flat surfaces and flat roofs. Typically, they lack consistency in the treatment of signage, lighting, architecture, and landscape.

Architecture in Industrial Areas

Buildings in the older developments typically have deep setbacks, with a “sea” of asphalt parking between the sidewalk and building. There is rarely a free standing tenant along the street frontage. The large amount of parking provided in these older centers needs to be assessed and reconfigured to improve the image and initial impression of the center, landscaped buffer zones and pedestrian links should also be developed.

The architectural treatments and design of the new Mixed Use areas designated on the Land Use Plan in the Land Use Element will be critical in the success of such developments. Special design consideration should be emphasized in the planning, architecture and landscape architecture of these areas.

Not unlike commercial architecture in the City, architecture associated with industrial uses also varies dramatically; architecture in the Central Industrial District varies from that of other industrial areas of the City. Although a good portion of the Central Industrial District is comprised of “tilt-up” concrete buildings, many of the buildings in this area have incorporated a variety of window treatments and entry statements to add visual appeal; in addition a variety of “planes” have been introduced along building facades to create building articulation.

Buildings in other industrial areas of the City are typical of older light industrial areas, prior to the advent of “industrial parks.” These buildings are typically one story with flat roofs from which heating and ventilation equipment can be seen. These buildings have minor articulated features such as awnings, and slightly recessed doors and windows. Examples of the variety of architecture in industrial buildings are shown on Exhibit 7, *Typical Industrial Development*.

These older industrial areas lack the appropriate landscape expression to define pedestrian spaces. Creative site planning through the appropriate placement of buildings, and landscape treatments would define scale and breakdown the relatively large unobstructed views of parking, storage, loading docks, etc.

4.3 Special Districts, Landmarks and Parks

4.3.1 Special Districts

Special Districts within the City include: Main Street, the Community Center, Harbor Corridor, Garden Grove Boulevard and the Brookhurst/Chapman area.

Main Street

Main Street, between Acacia Parkway and Garden Grove Boulevard, is primarily a retail area, supplemented by office uses. Special regulations and conditions have been placed on the area through the City's Zoning Ordinance, to protect and enhance the area. As shown on Exhibit 8, *Main Street*, Main Street's distinctive architectural character includes white, off-white or tan stucco, bricks, stonework or tile work, red barrel tile along portions of the rooflines, dark wood door frames, balconies, and awnings.

The streetscape along Main Street includes period light fixtures with hanging flower pots placed between the Sycamores which line the street. Planters and bollards have also been incorporated into the streetscape. Stamped concrete serves as the street pavement with brick pavers used along the sidewalks.

There is no signage announcing entry onto the Main Street. Signage is somewhat disorganized along Main Street, consisting primarily of self-illuminated box signs (either mounted flush on the storefronts or perpendicularly), and painted wood signs.

Community Center

The core area of the Community Center includes that area roughly bounded by Stanford Avenue to the north, Ninth Street to the east, Century Boulevard where it intersects with Euclid Street to the south, and Nutwood Street to the west. The area includes Main Street (described above), the GEM Theater, Village Green Park, and the Civic Center Complex as well as office, commercial, residential uses, and vacant properties.

As reflected on Exhibit 9, *Community Center*, architecture in the area varies dramatically, from the period architecture along Main Street to the brown slumpstone buildings found throughout the Civic Center, and the simple clean architectural lines of the GEM Theatre.

The OCTA R.O.W. and vacant properties in the area create a sense of abandonment and lack of conformity in an otherwise well maintained and lushly landscaped area; they substantially detract from the aesthetic qualities of the area.

The Civic Center and Village Green (or Euclid) Parks provide important visual relief in this urbanized setting. Landscaping in the Community Center area is most predominant in the Civic Center complex and at Village Green Park and enhanced paving programs have been implemented along the streetscape.

As shown on Exhibit 9, signage varies significantly within the Community Center area, from slumpstone monument signs, to the marquis at the GEM Theatre and banners at the Shakespeare Festival Amphitheater. As discussed previously, monument signs have been placed in the median islands signifying entry into the Community Center area.



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- 1 Stamped paving and the use of pavers on the sidewalks create an intimate feel along Main Street, offering pedestrians a sense of place.
- 2 Period light fixtures with hanging flower pots, planters, bollards, and Sycamore trees enhance the pedestrian environment and aesthetic appeal of the area. Signage is somewhat disorganized and unattractive.
- 3 A variety of building facades exist along Main Street; red tile roofs and white and tan stucco finishes provide continuity to the architecture. Awnings and tile work add interest to the facades.



GARDEN GROVE



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- 1 Architecture varies in the Community Center as exemplified by the stately architecture of City Hall and simplistic shape and design of the GEM Theater. The Civic Center complex is one of the few areas of the City where unique light fixtures have been installed.
- 2
- 3 The Shakespeare Festival Amphitheater is another example of architecture in the area. The banners used for signage are in keeping with the concept of banners in the vicinity of Euclid Street and Garden Grove Boulevard.
- 4 Most buildings in the Civic Center complex share brown slumpstone building facades. Signage throughout the complex is likewise similar. To continue the visual continuity of the area, the high school across the street has similar slumpstone features.
- 5 The Civic Center and Village Green Parks offer visual relief in this urban setting. The lush, mature landscaping is an important statement in the area.

Community Center

*Harbor Corridor and
Garden Grove Boulevard*

The Harbor Corridor extends along Harbor Boulevard from the northerly city boundaries, north of Chapman Avenue, to the SR-22 Freeway. Garden Grove Boulevard extends in an east/west direction throughout the entire City. Uses in both areas include restaurants, offices, motels and a variety of retail-oriented commercial uses. In some areas residential uses back-up onto the Boulevards.

Generally speaking, Harbor Corridor and Garden Grove Boulevard, not unlike most of the commercial development in the City, project the following images, as reflected on Exhibits 10, *Harbor Corridor*, and 11, *Garden Grove Boulevard*:

- A lack of a cohesive well designed streetscape treatment;
- Proliferation and disorganization of signage;
- A visual impression that is primarily buildings and parking lots;
- Unobscured views into vast and overwhelming areas of parking;
- A conglomeration of mixed building styles, unorganized parking, and signage, creating a sense of disorder; and
- A lack of an appropriate and attractive pedestrian environment.

The lack of continuity creates a sense of disorganization and reinforces the area's lack of cohesiveness and quality. Features such as architectural and landscape treatment, lighting, signage, parking and landscape setbacks, could be better unified to create a consistent quality.

The introduction of a consistent design treatment could also help to establish a unified image along the areas' edges. The internal edges are formed by the interface between land uses, such as commercial and single-family housing; there is not a consistent or an identifiable treatment of these conditions. The introduction of a consistent design treatment that respects the functional and visual requirements of each use would help establish a more positive image throughout each area.

Brookhurst/Chapman

The Brookhurst/Chapman area is characterized by new commercial development on the west side of Brookhurst Street (both north and south of Chapman Avenue), and older strip commercial at the southeast corner of the intersection.

The newer commercial development on either side of Chapman Avenue complements one another, using similar architecture and colors. Freestanding buildings and landscaping along the street frontage add visual interest and conceal the parking areas. The architecture in these areas is simple with clean lines; visual interest has been introduced through the use of space frames, articulated building facades, overhangs, cantilevered awning treatments, bold shapes, and visibility of integrated roofing materials, as shown on Exhibit 12, *Brookhurst/Chapman*. Landscaping of these



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- 1 The streetscape along Harbor Boulevard is treated inconsistently; while a median island extends along a length of the roadway, the Corridor's edges are ill-defined and lack visual amenities such as landscaping. While the proliferation of signage has improved in recent years, the shapes, colors, locations and types of signage still appear disorganized.
- 2
- 3 Older motels along the Corridor are typically two story with inefficient and uninteresting site layout. "Seas" of parking directly about the street, further detracting from the aesthetic qualities of the area.
- 4 Newer developments along the Boulevard have incorporated thematic architecture, similar to the Spanish Colonial Architecture style seen at this center. While low lying walls screen the parking area to a certain degree and create an edge between the property and the street, the use of additional landscaping would further enhance the visual quality of the development.



GARDEN GROVE

GENERAL PLAN



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1 An inconsistent edge is created along Garden Grove Boulevard. A proliferation of signage detracts from the landscaped areas.

2 Some areas of the Boulevard offer the visitor a "sense of place" through the use of banners or seasonal decorations and defined landscaped edge treatments. The proliferation of signage is softened in these areas.

3 Strip commercial centers such as this one, detract from the area due to a noticeable lack of landscaping and interesting architectural features.

4 Overhead utility lines, exposed trash areas, parking immediately abutting the sidewalk and the temporary painted signage on this corner create a sense of disorganization.

5 Signage along segments of the Boulevard are in multiple languages as evidenced in this new development. As seen here, building articulation, a landscaped setback and parking lot landscaping create a more pleasant environment than found in photos 3 and 4.



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Garden Grove Boulevard



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- 1 The newer commercial developments complement one another through the use of landscaping, building articulation, and color. The use of porticos, colonnades, cantilevered structures, bold shapes, and space frames add visual interest.
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- 4 Inconsistent and a myriad of facade treatments creates chaos and disorganization, unbecoming to this center. Signage, broken and in need of repair, creates a sense of abandonment. The buildings setback equidistant from the street offer a monotonous uniformity. The asphalt parking area would be softened through landscaping and a landscaped edge along the street.



Brookhurst / Chapman

developments includes parking lot landscaping, as well as entry, frontage, and building landscaping.

As shown on Exhibit 12, the older commercial development at the southeast corner of Brookhurst Street and Chapman Avenue has no landscaping with the exception of street trees. Views onto the site include a “sea” of asphalt parking, automobile grills, buildings in need of repair, and broken signage. The building facade is flat, windows and glass doors characterize the lower half of the facade. The upper half of the facade varies in height, color, texture and treatment. Signage varies along the store fronts, from self-illuminated box signs to painted signs.

Introduction of an appropriate signage and facade rehabilitation program and landscaping would enhance the aesthetic quality, add cohesiveness to development, and provide continuity and order.

4.3.2 Landmarks

Landmarks in the City include the Crystal Cathedral, Plaza Alicante, Stanley Ranch Museum and Heritage Park.

Crystal Cathedral

The Crystal Cathedral is located on the corner of Chapman Avenue and Lewis Street. As shown on Exhibit 13, *Community Landmarks*, the most distinctive aspect of the Crystal Cathedral is the 236-foot steeple of highly polished stainless steel prisms; this is one of the tallest structures in Orange County and can be seen from the SR-22, SR-57, SR-55 and I-5 Freeways as well as neighborhoods within Garden Grove.

Plaza Alicante

The Plaza Alicante is located on 17.5 acres and consists of a 17-story hotel, connected by a 160-foot glass atrium to the ten-story office building. The buildings are constructed of peach colored magnelite and concrete with white steel trusses framing the windowed atrium structure, as shown on Exhibit 52. The entry is lined with Mexican Fan Palms, Date Palms, Ficus species, and Jacaranda. A fountain with extensive tile work forming black and white “swirls,” and decorative flamingos announce the entry into the hotel lobby. Signage is limited to a simple building sign on the hotel with sans serif lettering.

Stanley Ranch Museum and Heritage Park

The Stanley Ranch Museum and Heritage Park are located on Euclid Street, north of the Community Center core area. The site includes: the Stanley House; a windmill and tank house; a barn built; a shoe repair and barber shop; the Garden Grove Lumber Building; a blacksmith shop; Garden Grove’s first post office; the Schnitger House; the Blaeholder House; the Reeder House; the Garden Grove High School; the Disney Garage; a recreation of the City’s original fire station; Emerson Hall; and a general store, which was the first community water district building in the City.



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- 1 The Crystal Cathedral** - The City's most prominent landmark, can be seen from nearby freeways and cities. The most distinctive feature is the 236 foot steeple of highly polished stainless steel prisms.
- 2 Plaza Alicante** - This 17-story hotel is connected to the 10-story office building by a 160 foot glass atrium. The building, constructed from unique peach colored material, is a landmark located at the north end of Harbor Boulevard.
- 3 Stanley Ranch Museum and Heritage Park** - Located on Euclid Street, the Garden Grove Historical Society maintains these grounds. The Stanley Ranch house, seen here, the windmill and tank house, and general store are all visible from the street. The courtyard and gazebo on the grounds serve as the focal point for this landmark.

4.3.3 Parks

Parks can also be considered landmarks within a community. A discussion of parks within Garden Grove and the facilities offered at each of the parks is found in the Parks and Recreation, and Cultural Activities Element. Parks are important to the aesthetic quality of a community because they offer visual relief to the surrounding development. Parks in Garden Grove are filled with mature landscaping which further enhances the visual relief. Landscaping in the parks found in Garden Grove consists of a variety of lawns and shrubs, trees found in the City's parks are identified in Appendix A.

Special features, such as waterfeatures, contribute to the aesthetic appeal of a park in addition to mature landscaping. The pond used for water retention at Twin Lakes Freedom Park offers such an opportunity, however trash lines the periphery of the pond and the water levels appear to be lower than in the past as evidenced by the barren dirt at the ponds edge. In addition, a chain link fence has been erected around a portion of the pond; trash has been caught on the fence and has collected at the base.

5. GOALS AND POLICIES

ISSUE

In surveys and public meetings, residents of Garden Grove have expressed strong support for an enhanced City appearance. It is understood that there are important benefits to be gained from a more positive City image: community pride, residents' satisfaction, and a permanent, active citizenry, dedicated to the City's future prosperity. These benefits will be reflected in the appreciation of Garden Grove's property values, enhancing the financial investment residents have made in their City.

GOAL

1. Beauty and order throughout Garden Grove.

POLICIES

The City should:

- 1.1 Develop a Citywide Urban Design Plan.

Related goals and policies are found in the Land Use, Housing and Economic Development Elements.

*Create a Positive
Community Image*

ISSUE

Careful maintenance of existing public and private property is of the utmost importance to the image of the City, and the satisfaction of its residents. Well-maintained properties enhance the aesthetic appearance of neighborhoods and commercial centers, reflect their prosperity, and support the values of the real estate they incorporate.

GOAL

2. Elimination of all evidence of property deterioration throughout Garden Grove.

POLICIES

The City should:

- 2.1 Continue to support an active code enforcement program. To this end, continue to use volunteers to conduct windshield surveys in order to identify minor zoning/code enforcement infractions.
- 2.2 Develop incentive programs for the improved appearance of residential, commercial and industrial areas.
- 2.3 Continue and expand graffiti suppression and removal programs.
- 2.4 Maintain and upgrade the City's parks, eliminating all evidence of vandalism, wear and deterioration.
- 2.5 Work with the Orange County Flood Control District (OCFCD) to ensure that drainage facilities are kept clean, clear of debris and graffiti, and otherwise properly maintained.
- 2.6 Consider establishing a program to retrieve shopping carts.

Related goals and policies are found in the Land Use, Housing, Safety, and Parks, Recreation and Cultural Activities Elements.

ISSUE

Landscaping, when effectively applied and maintained, can provide visual relief in urban environments by softening architecture, screening parking areas and enhancing public spaces. Landscaping adds much to the City's appearance, and to citizens' pride and pleasure in their community.

GOAL

3. A green Garden Grove.

POLICIES

The City should:

- 3.1 Adopt a "Greening of Garden Grove" program to encourage public/private partnerships in the landscaping of the community.
- 3.2 Review landscape plans for new development to ensure that landscaping relates well to the scale of structures and land use(s) it serves.

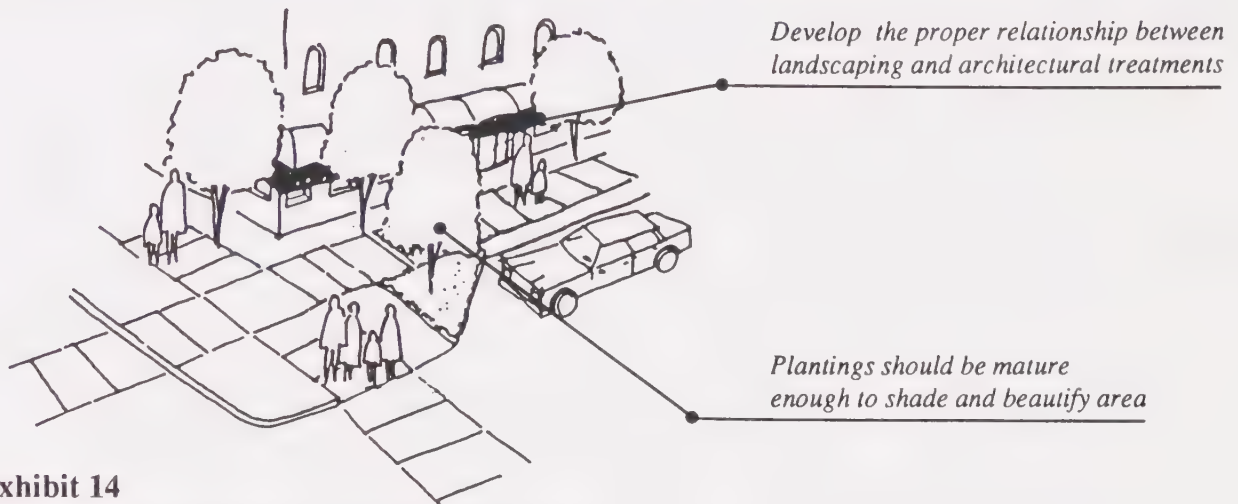


Exhibit 14

Landscaping Should be in Scale with Structures

- 3.3 Amend "Title 9, Chapter 9.16, Article IV, Landscaping."
- 3.4 Improve City appearance by requiring landscaping to screen, buffer and unify new and existing development.
- 3.5 Maintain Garden Grove's agricultural lands in order to preserve the visual relief they provide to an urbanizing environment, consistent with the goals and policies adopted in the Open Space/Conservation and Land Use Elements.

Related goals and policies are found in the Land Use, Air Quality and Open Space/Conservation Elements.

ISSUE

To residents and visitors alike, the appearance of a city's streets and the views from those streets are vital elements in establishing the character,

*The View from the Road:
Streetscapes Create*

identity and image of the city. Garden Grove's "streetscapes," therefore, are of singular importance in improving its appearance.

GOAL

4. Interesting and attractive streetscapes throughout Garden Grove.

POLICIES

The City should:

- 4.1 Develop a residential street tree planting and replacement program. (See Appendix A for approved species of trees to be planted along public rights-of-way.)
- 4.2 Promote a rhythmic and ceremonial streetscape along the City's arterial roadways, continuing the use of landscaped medians to enrich the streetscape.

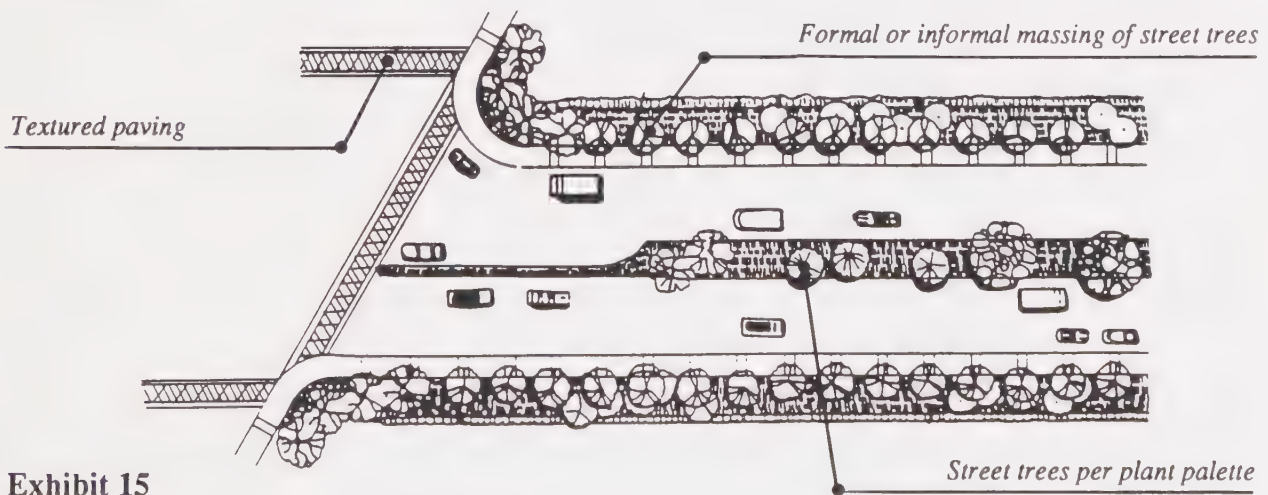


Exhibit 15
Interesting and Attractive Streetscapes

- 4.3 Develop a street tree planting and replacement program for the City's arterial roadways. To this end, ensure that critical corridors, such as Harbor Boulevard, are given priority with regard to streetscape enhancement programs.
- 4.4 Preserve, when consistent with public safety, mature tree stands along City streets.
- 4.5 Continue and, when possible, accelerate the undergrounding of utility lines throughout the City.

- 4.6 Encourage a variation of building and parking setbacks along the streetscape to create visual interest, avoid monotony and enhance the identity of individual areas.
- 4.7 Require that all sides of a building visible from City streets display fully finished architectural detail, including finished doors, windows and exterior surfaces identical to, or which complement, the front of the building.
- 4.8 Require landscaping treatment on any part of a building site which is visible from City streets.
- 4.9 Consider contrasting paving for pedestrian crosswalks in order to increase pedestrian safety while adding visual interest to the streetscape.

*Use of stamped or textured concrete or
use of interlocking, textured pavers*

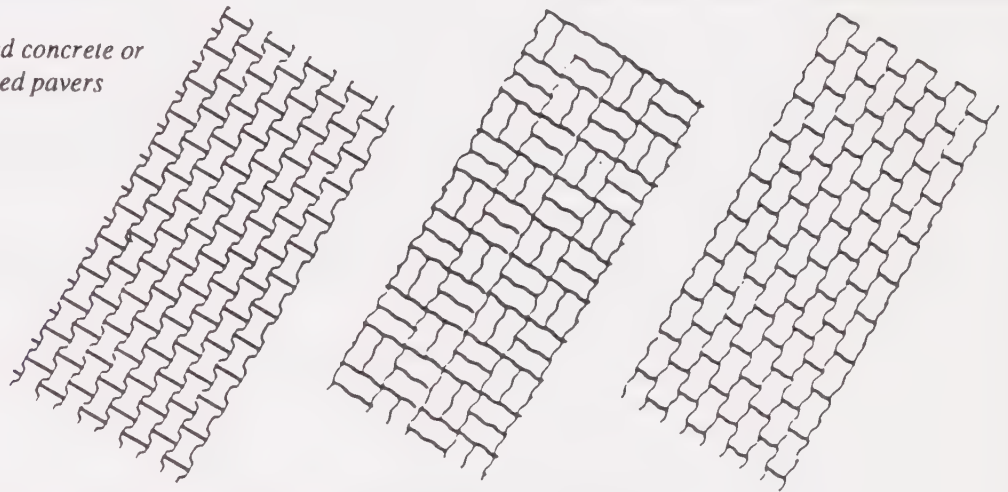


Exhibit 16

Paving Treatments Increase Pedestrian Safety and Create Visual Interest

- 4.10 Design and develop landscape clusters along the Orange County Transit Authority (OCTA) right-of-way at its intersection with the City's major arterials.
 - 4.11 Ensure the proper maintenance of the parkways along arterial streets.
- Related goals and policies are found in the Land Use, Circulation and Infrastructure, Economic Development, Noise and Safety Elements.*

ISSUE

The Garden Grove Freeway is a prominent structure which bisects the City. Because of its visual prominence, and the volume of traffic it carries, freeway edges and developments adjacent to it require special design consideration.

*Improving the Visual
Image of the Garden
Grove Freeway*

GOAL

5. The Garden Grove Freeway as a visual enhancement of its namesake City.

POLICIES

The City should:

- 5.1 Work with Caltrans to provide and maintain an attractive freeway environment within Garden Grove.
- 5.2 Provide planted medians, sufficient to include City entry monuments on arterials crossing beneath the freeway.
- 5.3 Discourage the indiscriminate placement of highway directional signs, traffic signs, street signs and informational signs in a manner which confuses drivers.
- 5.4 Require new commercial or industrial development adjacent to, and visible from the freeway and its ramps, to incorporate full architectural and landscape treatment of the building on the freeway side.

Related goals and policies are found in the Circulation and Infrastructure Element.

ISSUE

The City of Garden Grove recognizes the value of alleys and their importance in supporting the goals of the Land Use and Circulation and Infrastructure Elements. In many cases, however, alleys have not been well maintained, and have become a source of visual blight.

GOAL

6. Well maintained, functional alleys throughout Garden Grove.

POLICIES

The City should:

- 6.1 Require new development projects to improve and maintain dedicated alleys located on their sites.
- 6.2 Encourage, where feasible, the utilization of vacated alleyways, incorporating them into new project design.

This



Not this

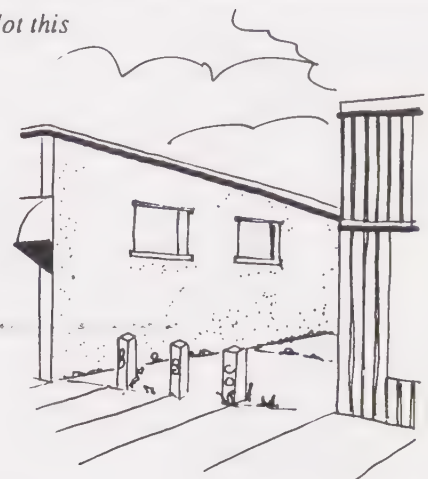


Exhibit 17
Incorporate Alleys into Project Design

*Parking Lots Need Not be
“Eyesores” Within a
Community*

- 6.3 Consider establishing incentives for property owners who maintain their alley frontages in good repair or provide alley improvements.
- 6.4 Examine the potential of improving dedicated alleyways with public funds.

Related goals and policies are found in the Circulation and Infrastructure Element.

ISSUE

Parking lots are typically “eyesores” within urban environments. Passersby are exposed to car grillwork, a “sea” of asphalt, and chipped or dented light standards. Large parking area microclimates are uncomfortable, with summer’s heat concentrated by paving, and winter’s chill sharpened by uninterrupted winds. Improvement to parking areas is critical for the appearance of the City, and the pleasure and comfort of its residents.

GOAL

7. Parking facilities with urban design amenities.

POLICIES

The City should:

- 7.1 Encourage new public and private parking facilities to meet aesthetic and functional standards beneficial to the urban environment.

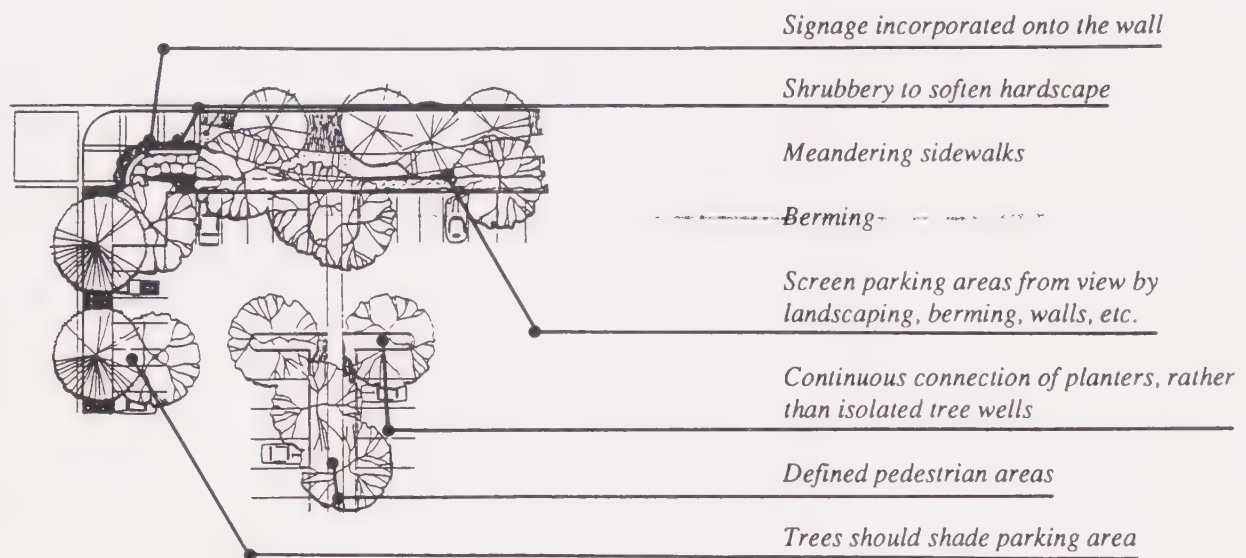


Exhibit 18
Parking Facilities with Urban Design Amenities

*Street Furniture is an
Important Component in
the City's Appearance*

- 7.2 Examine the potential of implementing Policy 7.1, above, at existing parking facilities throughout the City, applying appropriate incentive and funding programs.

ISSUE

Street furniture, including benches, shelters, refuse bins and other accessories incidental to the public's urban spaces, is now recognized as being important to the appearance of a community, and to the comfort and enjoyment of its citizens.

GOAL

8. Attractive street furniture, appropriate to each area of the City.

POLICIES

The City should:

- 8.1 Continue to provide, and where appropriate expand the use of, street furniture to increase citizen use and enjoyment of public areas.
- 8.2 Enhance the appearance of bus shelters within the City.

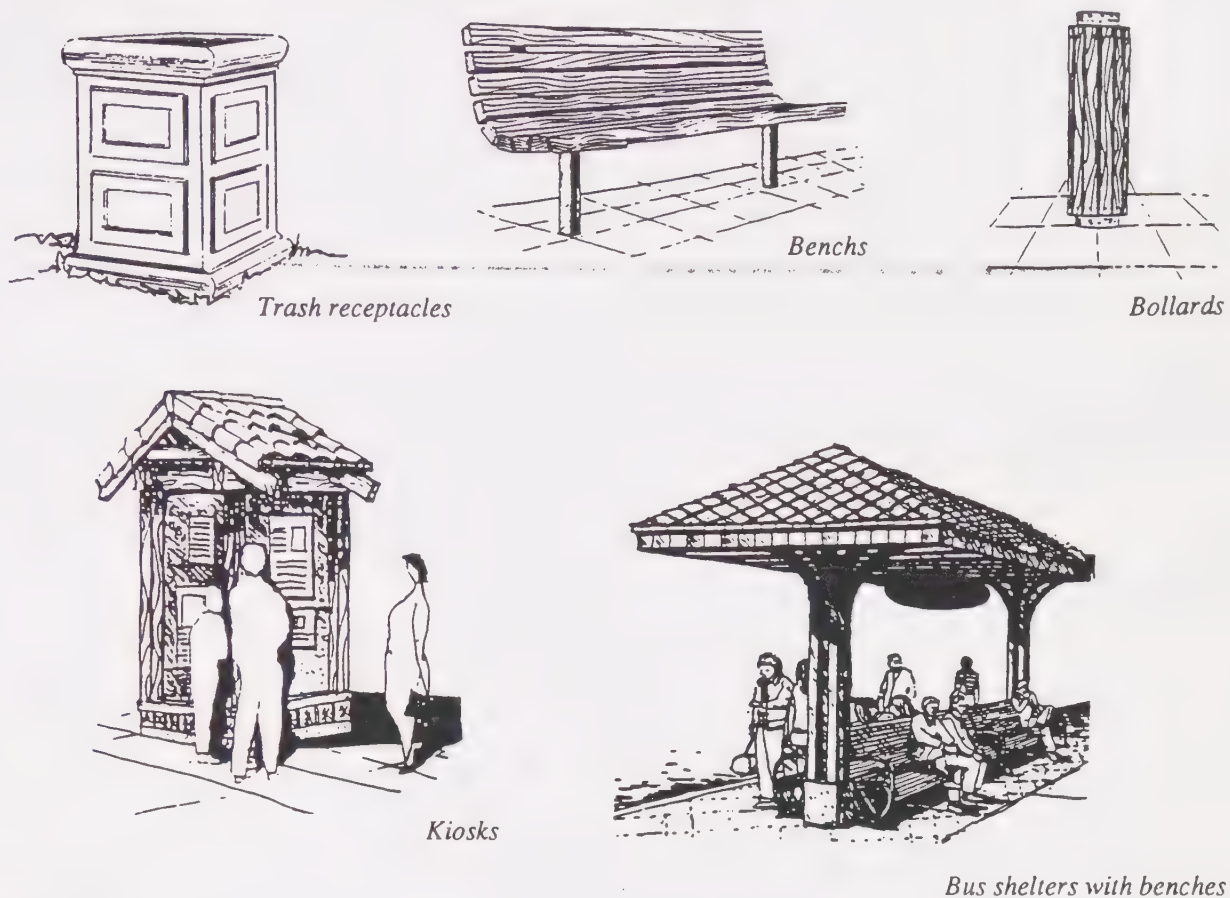


Exhibit 19
Attractive Street Furniture Appropriate to Each Area

*Lighting Should be
 Attractive While Providing
 Security*

ISSUE

Lighting is an important consideration in urban design. Not only must it be sufficient to provide security on streets and in public spaces, but it should be aesthetically pleasing in the design of its fixtures and the nature of the illumination it provides.

GOAL

9. Aesthetically pleasing, functionally adequate outdoor City lighting.

POLICIES

The City should:

- 9.1 Require uniformity in street lighting standards within each neighborhood, commercial center and public space.

*Walls and Fences are Key
Elements in the Design
Fabric of a Community*

- 9.2 Minimize outdoor lighting intrusion into residential neighborhoods.
- 9.3 Encourage energy efficient outdoor lighting in new development and, when feasible, as a replacement for existing, high energy outdoor lighting.

Related goals and policies are found in the Safety Element.

ISSUE

Walls and fences can serve important urban functions by defining private property and public right-of-way edges. Walls and fences can buffer noise, improve security, enhance privacy and screen unattractive land uses. But walls and fences can also detract from the quality of the urban environment when they are inappropriately designed or improperly maintained.

GOAL

- 10. Attractive and functional walls and fences throughout Garden Grove.

POLICIES

The City should:

- 10.1 Encourage fences which protect security without detracting from the appearance of streets, alleys and other public ways and spaces.
- 10.2 Encourage functionally effective walls which do not detract from the appearance of streets, alleys and other public ways and spaces.
- 10.3 In order to improve appearance while discouraging criminal activity, require that the OCTA right-of-way be secured with walls wherever temporary uses are developed within it, or permanent uses approved adjacent to it.
- 10.4 Screen unattractive views of flood control channels within Garden Grove.

Related goals and policies are found in the Land Use, Safety and Noise Elements.

ISSUE

*Signage Contributes to the
Community Character*

The signs that a city permits and promotes are a key element in defining the character of the community. Well designed signage contributes to the appearance of the city, and to the convenience of its visitors. But if signage is not carefully monitored, many types of signs, and the proliferation of signs,

can detract significantly from the aesthetic qualities of the city, and the image it presents to visitors and residents.

GOAL

11. Attractive and appropriate signage throughout the City of Garden Grove.

POLICIES

The City should:

- 11.1 Establish the boundaries of Garden Grove by marking major arterials' entries to the City with uniform signs, landscaping and illumination.
- 11.2 Establish the boundaries of Garden Grove by marking secondary arterials' entries to the City with uniform signs, landscaping and illumination.
- 11.3 Continue the use of monument signs to identify significant areas of the City, replicating the design of the monument signs used to designate the Garden Grove Civic Center.
- 11.4 Encourage the use of uniformly designed entry monuments for new residential, commercial and industrial projects.
- 11.5 Amend "Title 9, Chapter 9.16, Article VII, Signs," to improve the aesthetic quality of signage in Garden Grove and reduce the proliferation of signs on buildings and in some commercial centers.
- 11.6 Continue the use of the distinctive blue and white street and directional signs which identify the City, ensuring that new street and directional signs continue the tradition.
- 11.7 Discourage the placement of multiple directional, traffic and informational signs on light standards which are confusing to drivers. This policy does not constrain City authorities from placing a minimum number of signs necessary to public safety.
- 11.8 Require and enforce master sign programs to be developed and maintained at all commercial and industrial centers, with particular attention to multi-tenant centers.
- 11.9 Make enforcement and amortization of nonconforming signs a top priority.

Related goals and policies are found in the Land Use Element.

*To Create a Unified
Design Image, New
Development Should
Consider Existing
Development*

ISSUE

Although Garden Grove is thought to be fully developed, infill development and redevelopment will continue to occur. It is important that new residential development is aesthetically pleasing, and complementary to the existing community.

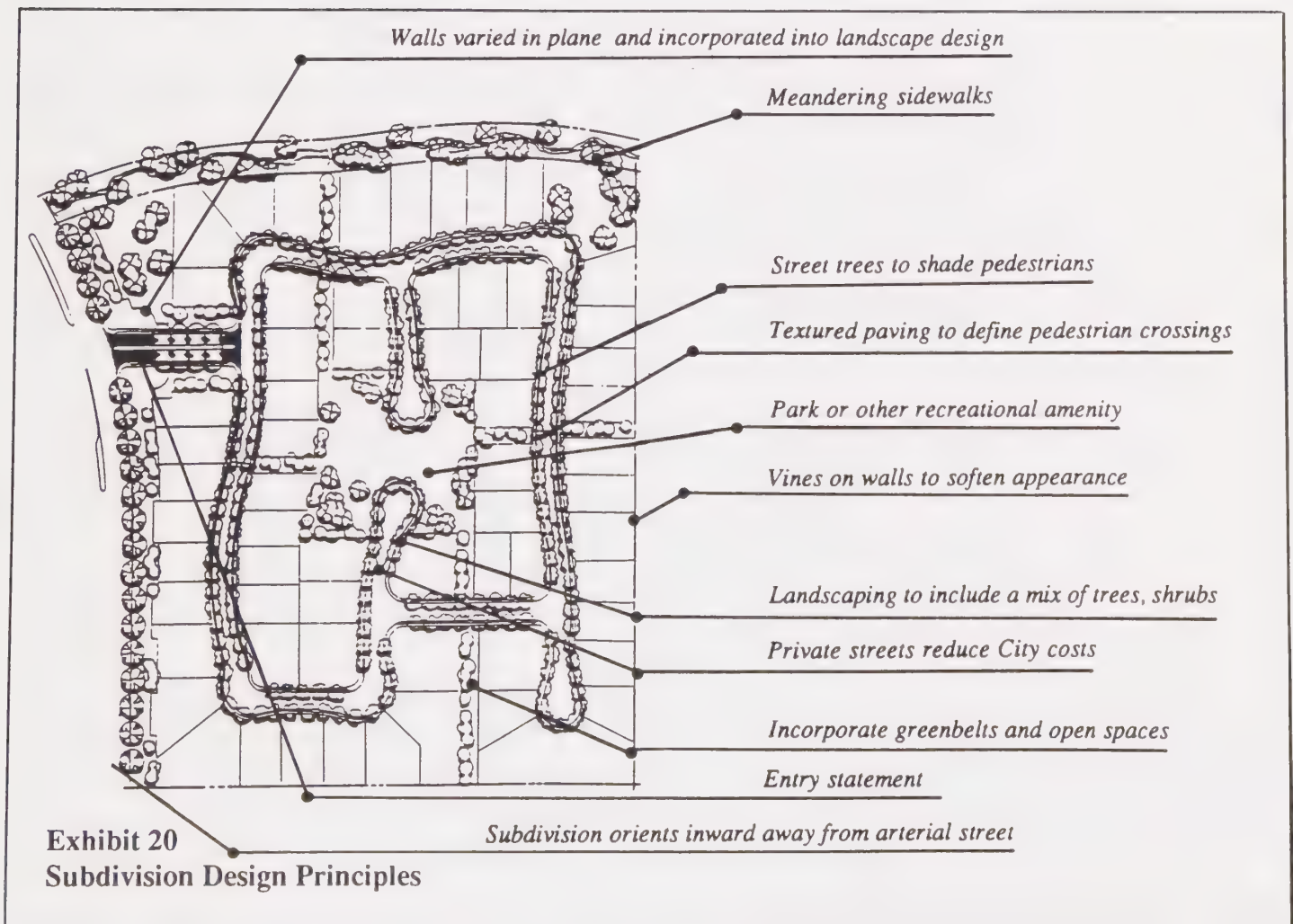
GOAL

12. Attractive new residential development, compatible with the existing community.

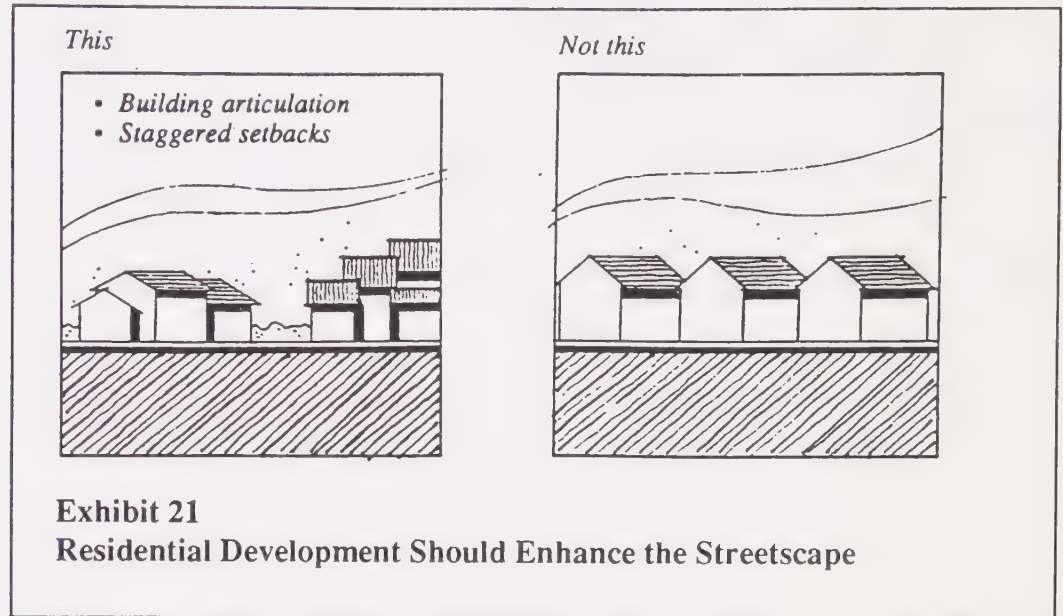
POLICIES

The City should:

- 12.1 Ensure that all new residential development and renovation is compatible with the architectural scale, massing and landscaping of adjoining neighborhoods.



- 12.2 Encourage multi-family residential development which incorporates innovative design appropriate to its site and environs.
- 12.3 Ensure that new residential development properly relates to the adjoining streets.
- 12.4 Ensure that residential development enhances the streetscape within its neighborhood, and provides sidewalks where appropriate.



- 12.5 Ensure that new residential development meets the architectural standards and guidelines adopted by the City as part of its Citywide Urban Design Plan.
- 12.6 Use the environmental review process to ensure that the environmental and aesthetic qualities of residential projects meet Garden Grove standards and the policies identified in this Element.

Related goals and policies are found in the Land Use and Housing Elements.

ISSUE

The great majority of residential units in Garden Grove were built many years ago, and many of these neighborhoods are beginning to show wear and deterioration. A neighborhood's design can become obsolete, requiring change and renewal to remain attractive, in the same way that the neighborhood's buildings require occasional refurbishing. The updating and preservation of existing neighborhoods is important in maintaining the City's existing housing stock, as well as in maintaining and enhancing local property values.

*Neighborhood
Preservation is Vitally
Important to Garden
Grove*

GOAL

13. Preservation of all Garden Grove neighborhoods as attractive residential environments.

POLICIES

The City should:

- 13.1 Encourage and support neighborhood property owner associations which work to improve their communities.
- 13.2 Enhance the appearance and design of mobile home parks.
- 13.3 Ensure the timely completion of home additions and/or remodels.

*Soften edges and screen mobile home parks
with walls and landscaping*

Exhibit 22
**Enhance the Appearance
of Mobile Home Parks**



Related goals and policies are found in the Land Use, Safety and Housing Elements.

ISSUE

Many commercial and industrial projects in Garden Grove do not provide sufficient visual interest in color, plane, massing, landscaping and lighting. Such properties do not relate well to the street, or to neighboring structures. They are not pedestrian oriented in scale or visual detail, and add little to the citizens' enjoyment of their City.

*Commercial and
Industrial Areas are
Important in Conveying
the Desired Community
Image*

GOAL

14. Industrial and commercial properties which enhance the image of Garden Grove.

POLICIES

The City should:

- 14.1 Continue to review site plans for commercial/industrial projects.
14.2 Review architectural requirements for commercial/industrial projects.

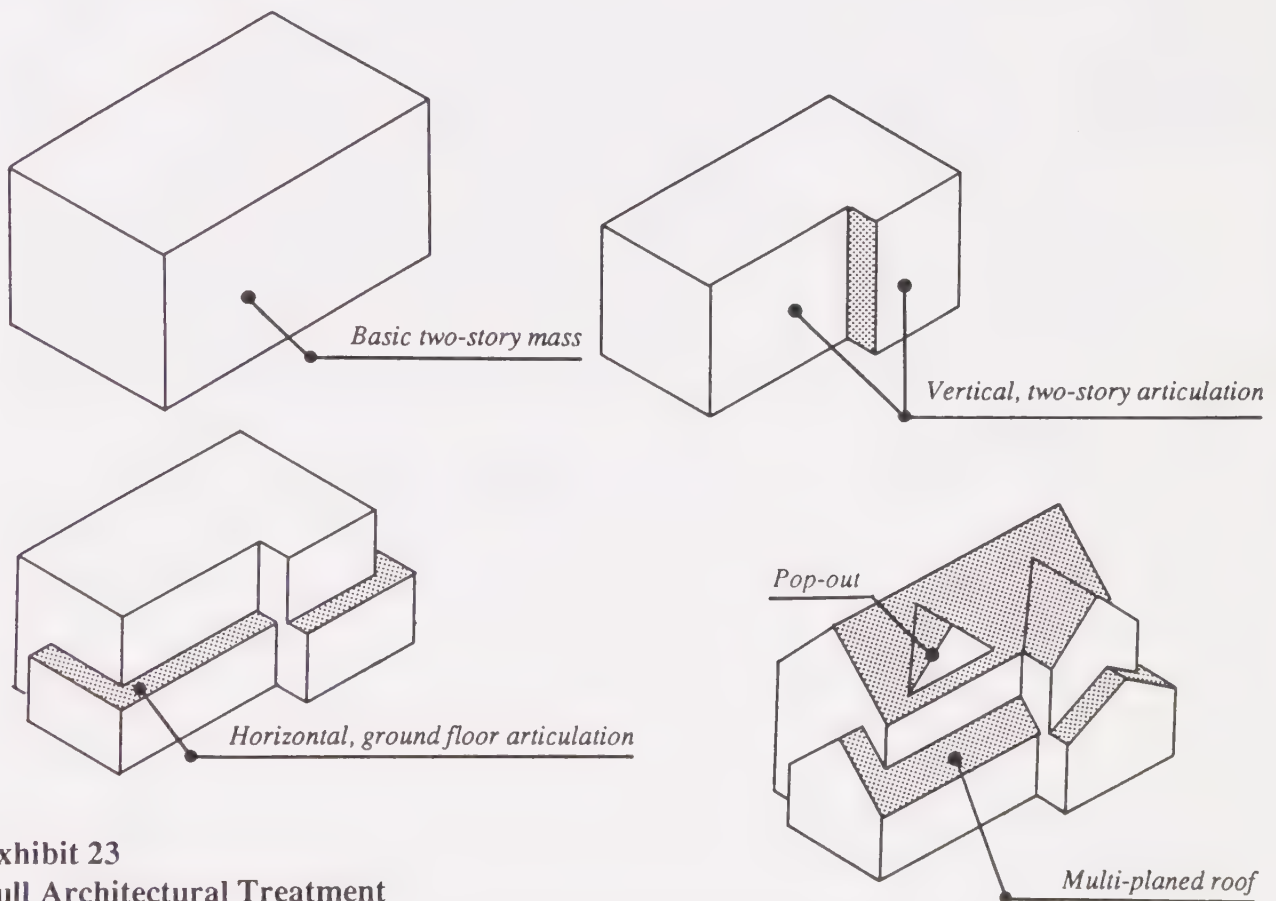


Exhibit 23
Full Architectural Treatment

- 14.3 Enhance the identity and attractiveness of the City's commercial centers by review of their architectural design and site plans.
- 14.4 Ensure that commercial and industrial development design responds to the safety, security, convenience and pleasure of the people who use the site.

Rooftop equipment to be concealed from public view

Colonnades add to the pedestrian scale

Arcades add visual interest

Mature landscaping

Pedestrian-oriented areas

Use of enhanced paving

Planters soften hard architectural features

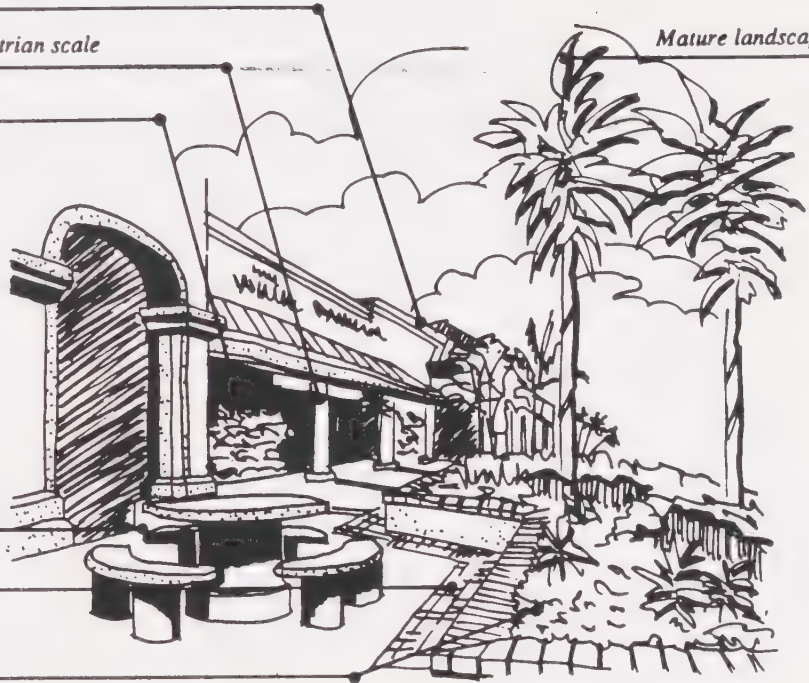


Exhibit 24

Commercial Projects Which Enhance the City of Garden Grove

- 14.5 Give special design consideration to the critical areas of development within the City, such as the Downtown area, as well as Harbor and Garden Grove Boulevards. To this end, ensure that large-scale developments, both new and redevelopment projects, incorporate landscaping, plazas, open space areas and other amenities.
- 14.6 Give special design consideration to automobile-related commercial sites such as gas stations, car washes, drive-through restaurants and convenience markets.
- 14.7 Ensure that all new and remodeled public buildings, service areas, storage facilities, and gathering places meet the design standards required of private development.

Related goals and policies are found in the Economic Development, Circulation and Infrastructure and Land Use Elements.

Variation in plane, texture and parapet

Rooftop equipment to be concealed from public view

Variety of surface materials, textures and treatments

Architectural treatment on all sides

Mature landscaping

Use of shrubs to conceal car grillwork

Dramatic, deeply recessed entries

Architectural accent features and focal points



Exhibit 25

Industrial Projects Which Enhance the City of Garden Grove

*Garden Grove's Heritage
Contributes to the
Community's Identity*

ISSUE

Garden Grove's heritage is displayed in a number of old buildings and sites throughout the City. Newer, but equally important to the character of Garden Grove, are landmarks such as the Crystal Cathedral and the Plaza Alicante. Community design in Garden Grove must protect and enhance these sites and their settings in order to preserve their rich contribution to the character and image of the City.

GOAL

15. Protection of the sites, structures and settings of notable elements of Garden Grove's community character.

Adopted Development Standards and Design Guidelines Provide Clear Direction in Establishing the Visual Image for an Area

POLICIES

The City should:

- 15.1 Preserve and enhance those structures which are representative of historic Garden Grove.
- 15.2 Protect and enhance Garden Grove's landmarks.

Related goals and policies are found in the Open Space/Conservation, Parks, Recreation and Cultural Activity and Land Use Elements.

ISSUE

Specific plans incorporate detailed design considerations appropriate to the areas they govern. There are currently three important areas of the City which have adopted Specific Plans, and new Specific Plans may be adopted for additional areas in the City. Adherence to the design standards and guidelines of adopted Specific Plans will do much to improve Garden Grove's image, and the character and identity of its parts.

GOAL

- 16. Implementation of adopted development standards and design guidelines.

POLICIES

The City should:

- 16.1 Develop a review program for development standards and design guidelines for Specific Plans and/or other special study areas.
- 16.2 Planned Unit Development (PUD) plans also serve as specific plans for their projects, and should be reviewed periodically for consistency with the Garden Grove General Plan Community Design Element.
- 16.3 Require strict adherence to those design standards adopted for projects located within Specific Plan or special study areas.

Related goals and policies are found in the Land Use Element.

◆ APPENDIX A

**APPENDIX A
CITY TREES**

Common Name	Latin Name	Street Trees	Median Trees	Frontage Trees	Residential Street Trees	Parks	Civic Center Complex	Fire Stations	Libraries	Municipal Services Center	Well Sites
Aleppo Pine	<i>Pinus halepensis</i>	.			.	.					
Arensis (Wilson Holly)	<i>Ilex altac</i>				.						
Arizona Ash	<i>Fraxinus velutina</i>	.			.						
Bailey Acacia	<i>Acacia baileyana</i>	.		.	.	.					.
Black Locust	<i>Robinia pseudoacacia</i>	.			.						
Bottle Tree	<i>Brachychiton populneus</i>	.			.						
Bradford Pear	<i>Pyrus bradford</i>	.			.	.	.		.	.
Brazilian Pepper	<i>Schinus terebinthifolius</i>	.		.	.	.			.		.
Brisbane Box	<i>Tristania conferta</i>	.	.	.	.	.
Bronze Loquat	<i>Eriobotrya deflexa</i>		.		.	.					
Cajeput Tree	<i>Melaleuca quinquenervia</i>	.	.	.		.				.
California Fan Palm	<i>Washingtonia filifera</i>	.			.	.					
Camphor Tree	<i>Cinnamomum camphora</i>	.			.	.	.
Canary Island Pine	<i>Pinus canariensis</i>	.	.	.	.	.	.	.	.		.
Cape Chestnut	<i>Calodendrum capense</i>				.	.					
Cape Pittosporum	<i>Pittosporum viridiflorum</i>				.						
Carob-St. Johns Bread	<i>Ceratonia siliqua</i>	.			.	.	.
Carolina Laurel Cherry	<i>Prunus caroliniana</i>	.			.	.					
Carrot Wood	<i>Cupaniopsis anacardioides</i>	.		.	.	.	.
Chinese Evergreen	<i>Ulmus parvifolia</i>	.			.	.					

APPENDIX A (CONTINUED)

Common Name	Latin Name	Street Trees	Median Trees	Frontage Trees	Residential Street Trees	Parks	Civic Center Complex	Fire Stations	Libraries	Municipal Services Center	Well Sites
Chinese Flame	Koelreuteria henryi	•			•	•	•				
Coast Live Oak	Quercus agrifolia	•			•	•					
Coral Gum	Eucalyptus torquata	•	•	•		•					•
Crape Myrtle	Lagerstroemia indica	•			•	•					
Cypress-cedars-junipers	Conifer			•	•		•				•
Date Palm	Phoenix canariensis	•			•						
Deodar Cedar	Cedrus deodara				•	•					
Evergreen Ash	Fraxinus uhdei	•			•	•					
Fern Pine	Podocarpus gracilor	•			•	•	•				
Floss Silk Tree	Chorisia speciosa		•	•	•	•	•				
Flowering Nectarine	Prunus alma stultz	•			•						•
Flowering Plum	Prunus blireiana				•						
Fruitless Mulberry	Morus alba	•			•	•					
Golden Rain	Koelreuteria paniculata	•			•						
Indian Laurel Fig	Ficus microcarpa Nitida	•	•	•	•	•					
Italian Stone Pine	Pinus pinea					•	•	•			
Jacaranda	Jacaranda acutifolia	•	•	•	•	•					
Japanese Privet	Ligustrum japonicum	•			•						
Lemon Bottlebrush	Callistemon citrinus	•	•	•	•	•	•			•	•
Lemon-Scented Gum	Eucalyptus citriodora	•	•	•	•	•	•		•		
London Plane	Platanus acerifolia	•	•	•	•	•	•				

APPENDIX A (CONTINUED)

Common Name	Latin Name	Street Trees	Median Trees	Frontage Trees	Residential Street Trees	Parks	Civic Center Complex	Fire Stations	Libraries	Municipal Services Center	Well Sites
Maidenhair Tree	Ginkgo biloba	.			.	.					
Mexican Fan Palm	Washingtonia robusta	.	.	.	.	.	.
Monterey Pine	Pinus radiata	.		.	.	.	.
New Zealand Christmas Tree	Metrosideros excelsa				.						
Oleander	Nerium oleander	.	.	.	.	.	.
Olive	Olea europea	.		.	.	.	.	.
Photinia	Photinia frazeri	.			.						
Poplar Cottonwood-Aspen	Populus				.						
Purple Leaf Plum	Prunus cerasifera	.			.	.					
Purple Orchid	Bauhinia variegata	.			.	.					
Queen Palm	Arecastrum romanzoffianum	.			.	.	.
Queensland	Pittosporum rhombifolium				.						
Red Cap Gum	Eucalyptus erythrocorys	.	.	.	.		
Red-Flowering Gum	Eucalyptus ficifolia	.	.		.						
Red Iron Bark	Eucalyptus sideroxylon	.	.		.	.
Rusty Leaf Fig	Ficus rubiginosa				.	.					
Siberian Elm	Ulmus pumila	.			.	.					
Silk Oak	Grevillea robusta	.			.	.					
Silver Maple	Acer saccharinum	.			.	.					

APPENDIX A (CONTINUED)

Common Name	Latin Name	Street Trees	Median Trees	Frontage Trees	Residential Street Trees	Parks	Civic Center Complex	Fire Stations	Libraries	Municipal Services Center	Well Sites
Southern Magnolia	Magnolia grandiflora	•	•	•	•	•	•				
Sweet Gum	Liquidambar styraciflua	•	•	•	•	•					
Sweet Shade	Hymenosporum flavum	•			•		•	•			
Victorian Box	Pittosporum undulatum	•			•	•			•		•
Weeping Bottlebrush	Callistemon viminalis	•		•	•	•					
Weeping Chinese Banyan	Ficus benjamina				•		•				
Weeping Willow	Salix babylonica				•						
Western Catalpa	Catalpa speciosa	•			•						
White Alder	Alnus rhombifolia				•	•	•				
White Iron Bark	Eucalyptus leucoxylon	•	•		•	•				•	
Willow Leafed Peppermint	Eucalyptus nicholii	•	•	•	•	•					
Windmill Palm	Trachycarpus fortunei	•			•	•					
Yew Pine	Podocarpus macrophyllus			•	•	•					

Source: Public Services Department.

APPENDIX B
SHRUBS AND GROUND COVER FOR PUBLIC LANDSCAPED AREAS

Common Name	Latin Name
Armstrong Juniper	Juniperus chinensis "Armstrongii"
Ballerina Raphiolepis	Raphiolepis indica "Ballerina"
Bar Harbor Juniper	Juniperus horizontalis "Bar Harbor"
Bird of Paradise	Strelitzia reginae
Clara Raphiolepis	Raphiolepis indica "Clara"
Creme de menthe	Pittosporum "Creme de Menthe"
Creeping Fig	Ficus repens
Euryops	Euryops
Fiesta Red Gazania	Gazania "Fiesta Red"
Fort Night Lily	Dietes vegeta species
Gold Coast Juniper	Juniperus chinensis "Gold Coast"
Hahn's Ivy	Hedera helix "Hahn's Self Branching"
Lily-of-the-Nile	Agapanthus
Mitsua Yellow	Agapanthus "Mitsua Yellow"
Mitsua Orange	Agapanthus "Mitsua Orange"
Peter Pan	Agapanthus "Peter Pan"
Photinia	Photinia fraseri
Pink Lady	Raphiolepis indica "Pink Lady"
Sea Green Juniper	Juniperus chinensis "Sea Green"
Society Garlic	Tulbaghia violacea
Springtime Raphiolepis	Raphiolepis indica "Springtime"
Tam Juniper	Juniperus sabina "Tamariscifolia"
Yellow Day Lily	Hemerocallis hybrid

◆ **PARKS, RECREATION AND CULTURAL ACTIVITIES**

The City shall endeavor to provide, develop and maintain adequate parklands of appropriate type and size and to provide a range of recreational facilities and activities, as well as cultural activities for persons of all age groups and in all areas of the community.

Although the Parks, Recreation and Cultural Activities Element is Not Required by State Law, it is Important to Garden Grove

1. INTRODUCTION

The Parks, Recreation and Cultural Activities Element, is not a mandatory element required by State planning law. The City has added this Element to its General Plan because there are six important issues in Garden Grove which must be addressed:

- There is an inadequate supply of existing parklands available for use by the community;
- There is a need for enhanced maintenance and rehabilitation of existing parks and recreational facilities;
- Some residents no longer feel comfortable using the City's parks due to increased criminal activities and the number of homeless who inhabit these parks;
- The provision of quality family daycare has become an important issue not only among young families, but the aging population as well;
- Cultural arts programs (i.e., theater, music, art, etc.) are an important, and treasured, aspect of life in the community; and
- The ethnic diversity of the community.

2. AUTHORITY FOR THE ELEMENT

Although this Element is not a mandatory element required by State planning law per se, Government Code Section 65560(b)(3) stipulates that the General Plan address "... Open space for outdoor recreation, including but not limited to, areas of outstanding scenic, historical and cultural value; areas particularly suited for park and recreation purposes, including access to lake shores, beaches, and rivers and streams; and areas which serve as links between major recreation and open space reservations, including utility easements, banks of rivers and streams, trails, and scenic highway corridors ..."

In addition, Government Code Section 65303 states that local governments may adopt "... any other elements or address any other subjects which ... relate to the physical development of the county or city." Such "other" elements are called "optional" elements. Upon adoption, an optional element becomes an integral part of the general plan. It has the same force and effect as the mandatory elements and must be consistent with the other

elements of the plan. In turn, zoning, subdivisions, public works, and specific plans must be consistent with all optional elements.

3. RELATIONSHIP TO OTHER ELEMENTS

The Parks, Recreation and Cultural Activities Element relates to the other elements in a variety of ways:

- The Land Use Element directly relates to this Element by designating areas of the City where open space/recreational opportunities exist.
- This Element addresses bicycle and pedestrian trail systems, which relate to the City's overall circulation system addressed in the Circulation Element.
- The Parks, Recreation and Cultural Activities Element's relationship to the Housing Element is conditioned by the need to serve a growing population's recreational needs.
- This Element relates to the Safety Element by addressing the safety and welfare of the community relative to leisure time and family care activities provided in the City.
- Park and open space areas are often utilized to buffer noise sensitive land uses from noise sources, thereby establishing a correlation between the Noise and Parks, Recreation and Cultural Activities Elements.
- This Element relates closely to the Open Space/Conservation Element in that the parks within the community comprise much of the open space area in the City.
- This Element relates to the Economic Development Element by recommending fiscally sensitive programs and activities which can be readily assimilated into existing programs.
- Parks provide important visual relief and contribute to the community character with their mature landscaping, thereby establishing an important relationship between the Community Design and Parks, Recreation and Cultural Activities Elements.
- The Parks, Recreation and Cultural Activities Element strives to accommodate future growth in a responsible manner in coordination with the Growth Management Element.

- The Air Quality Element focuses on protecting the air from further contamination by reducing vehicle trips and supporting other modes of transportation; this Element recommends enhancement of other transportation systems, specifically bicycle and pedestrian trail systems.

4. SUMMARY OF FINDINGS

4.1 EXISTING PARKS

The City Currently has a Parks to Population Ratio of 1.07 Acres to 1,000 Persons, the City's Goal is to Achieve Five Acres per 1,000 Persons

The City of Garden Grove has twenty public parks totaling 158.9 acres. The City's target for the ratio of park acres to population is five acres per 1,000 population. The City's population is 148,065; thus, the current ratio of park acres to population is 1.07 acres per 1,000 population, below the City's goal. In that the City is virtually built-out and vacant land is almost non-existent, opportunities for new park development are limited.

Of the 158.9 acres of parks within the City, 88.5 acres are owned by the City of Garden Grove, with the remaining 70.4 acres of parklands shared under a joint use agreement with the Orange County Flood Control District (OCFCD) or the Garden Grove Unified School District (GGUSD). There are a total of eight joint use parks within the City.

In addition to these parks, the City owns Willowick Golf Course, an 18-hole, 101-acre, municipal golf course immediately adjacent to Garden Grove in the City of Santa Ana.

Table 1, *Existing Recreational Facilities*, and Exhibit 1, *Existing Recreational Facilities*, identify the parks within the City; Table 1 also lists the major recreational facilities provided at each park. In addition to the major recreational facilities identified in Table 1, most parks also include passive recreational facilities, such as picnic areas.

In addition to the parks identified in Table 1 and Exhibit 1, there are approximately 761 acres of open space uses which may be suitable for recreational purposes. These uses include schools (in addition to those joint use facilities identified in this Element), the OCTA right-of-way, SCE easements, vacant properties, the closed landfill at Harbor Boulevard and Chapman Avenue, as well as greenbelts, medians and other public landscaped amenities.

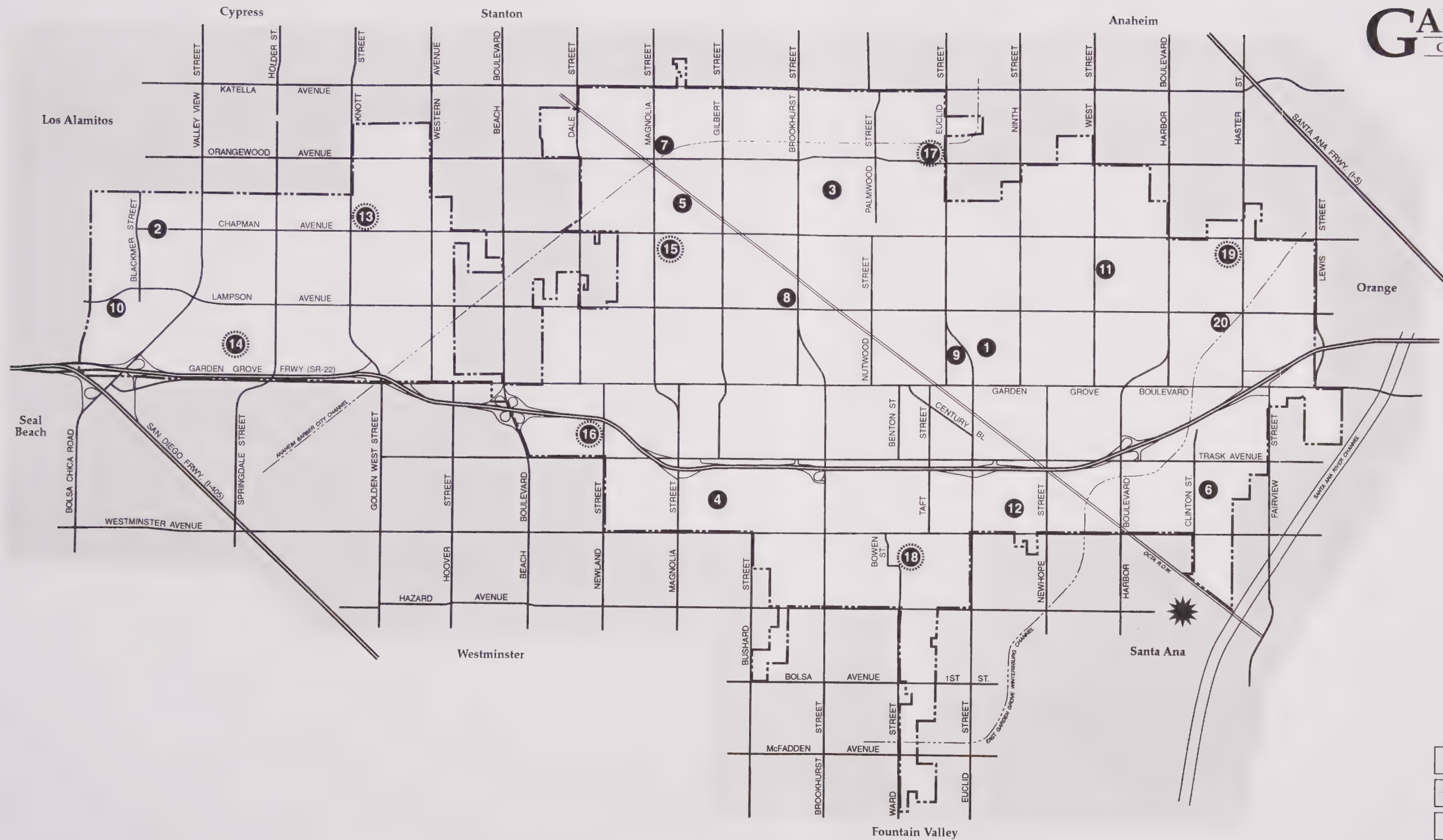
**TABLE 1
EXISTING RECREATIONAL FACILITIES**

Park	No. on Exhibit 1	Acres	Type	Swimming Pool	Multi-Purpose Field / Soccer	Ballfields	Basketball	Volleyball	Multi-Purpose Court	Tennis	Play Equipment	Handball	Hockey	Multi-Purpose Building	Arena Soccer
Chapman Sports Complex	13	11	C/S		5	1	2			6		3	2		
Civic Center	1	6	C/SP												
Eastgate Park	2	4.5	C	1					1		•			•	
Edgar School Park	14	6	N/S		1						•			•	
Faylane Park	3	2.9	N								•				
Garden Grove Park / Atlantis Play Center	4	40	C		2	4		5			•			•	2
Gutosky Park	5	2.1	N								•				
Jardine de los Niños	6	0.7	N				1/2				•				
Hare School Park	15	14*	C/S		2	4	2								
James McCormick School Park	16	0.9	N/S								•				
Lake School	17	10	C/S			4	4								
Magnolia Park	7	5.9	C	1			1			2	•	2		•	
Morningside Park	18	1.5	M												
Pioneer Park	19	4	N/S								•		1	•	
Spirit of '76	8	0.5	M												
Twin Lakes Park	20	23	C/SP /S								•				
Village Green	9	6.3	C/SP								•			•	
West Grove Park	10	6.6	C		1	1			1		•			•	
West Haven Park	11	10	N		1						•			•	
Woodbury Park	12	3.3	C	1					1		•				

Types of Parks: C - Community, N - Neighborhood, M - Mini, SP - Special, S - Joint School Use

*Acreage does not include County Library Facility

GARDEN GROVE GENERAL PLAN



- 1 Parks
- 1 Park / School
- ★ Willowick Municipal Golf Course

Classification of Park Types

There are four types of parks within Garden Grove: Community Parks, Neighborhood Parks, Mini Parks and Special Use Parks. These park types are described on the following pages.

Community Parks

The largest parks in Garden Grove are Community Parks; these parks are centrally located to serve the active and passive recreational needs of more than one neighborhood or the entire community. These parks range in size from three to forty acres, and have facilities such as pools, recreation buildings, or theaters which serve an area larger than the neighborhood in which it is located. A Community Park should serve a population of between 10,000 and 50,000 within a radius of one to two miles. Community Parks typically contain paved multi-purpose courts, play areas, restrooms, lighted ballfields, community and/or recreation buildings, tennis courts, and/or other major service facilities such as a theater or swimming pool. Community Parks serve a wide area and are generally designed for automobile access as well as pedestrian and bicycle access. These facilities are typically located adjacent to junior high schools or high schools and, in some cases, are operated under a joint use agreement with the School District.

Community Parks in Garden Grove include Civic Center, Eastgate, Garden Grove, Hare School, Lake School, Magnolia, Twin Lakes, Village Green, West Grove and Woodbury Parks, as well as the Chapman Sports Complex. Of these, the Civic Center, Twin Lakes and Village Green Parks are also Special Use Parks. Twin Lakes, Hare School and Lake School Parks, as well as the Chapman Sports Complex are joint use facilities.

Neighborhood Parks

Neighborhood Parks are typically the most common type of parks in the City, and range in size from three-quarters of an acre to ten acres. Neighborhood Parks are intended to serve one neighborhood, and are located within walking or biking distance, generally not more than one-half mile. Often neighborhood parks are located adjacent to elementary schools, with facilities shared under joint use agreements with the School District. Neighborhood Parks provide a wide range of both passive and active recreation opportunities focused on neighborhood recreational activities. Facilities vary in each neighborhood based on the characteristics of the user population, but typically include: play areas for pre-school and older children, picnic areas, ball fields, paved multi-purpose courts, and restrooms. Limited off-street parking is usually provided, however, primary access is by foot or bicycle.

Neighborhood Parks in Garden Grove include Edgar School, Faylane, Gutosky, Jardine de los Niños, James McCormick School, Pioneer and

West Haven Parks. Of these, Edgar School, James McCormick School and Pioneer Parks are joint use facilities.

Mini Parks

Mini Parks, otherwise known as “pocket parks” are small, passive recreation parks, generally under one acre in size, serving a small area. These parks often serve areas where land is not available for a neighborhood facility, and are likely to contain seating areas and walkways. Within Garden Grove are two Mini Parks: the Spirit of '76 Mini Park and Morningside Park.

Special Use Parks

These are parks which have unique characteristics. Twin Lakes Park is a Special Use Park because of the passive nature of the Park and the lakes within the Park. Civic Center Park is a Special Use Park because of the presence of the Civic Center offices, Senior Center, and other civic uses. Village Green Park, due to it's proximity to the Festival Amphitheater, GEM Theatre and the Courtyard Center, is also a Special Use Park.

Despite the Deficiency in Acreage, Parks are Well Distributed and Serve Most Neighborhoods

Despite the deficiency of parkland acreage within the City, parks are fairly well distributed throughout Garden Grove, as shown on Exhibit 2, *Service Areas of Existing Parks*. Based on the service areas for each park type, almost all of Garden Grove’s neighborhoods are served by community parks. Additional neighborhood parks would benefit several areas of the City.

Additional information relating to parks and recreational activities in Garden Grove can be found in the Existing Conditions Report, Section 3.11.1, Parks.

4.2 OTHER RECREATIONAL FACILITIES

In addition to the parks within the City, there are other recreational facilities available for use by City residents, as described below.

Willowick Municipal Golf Course

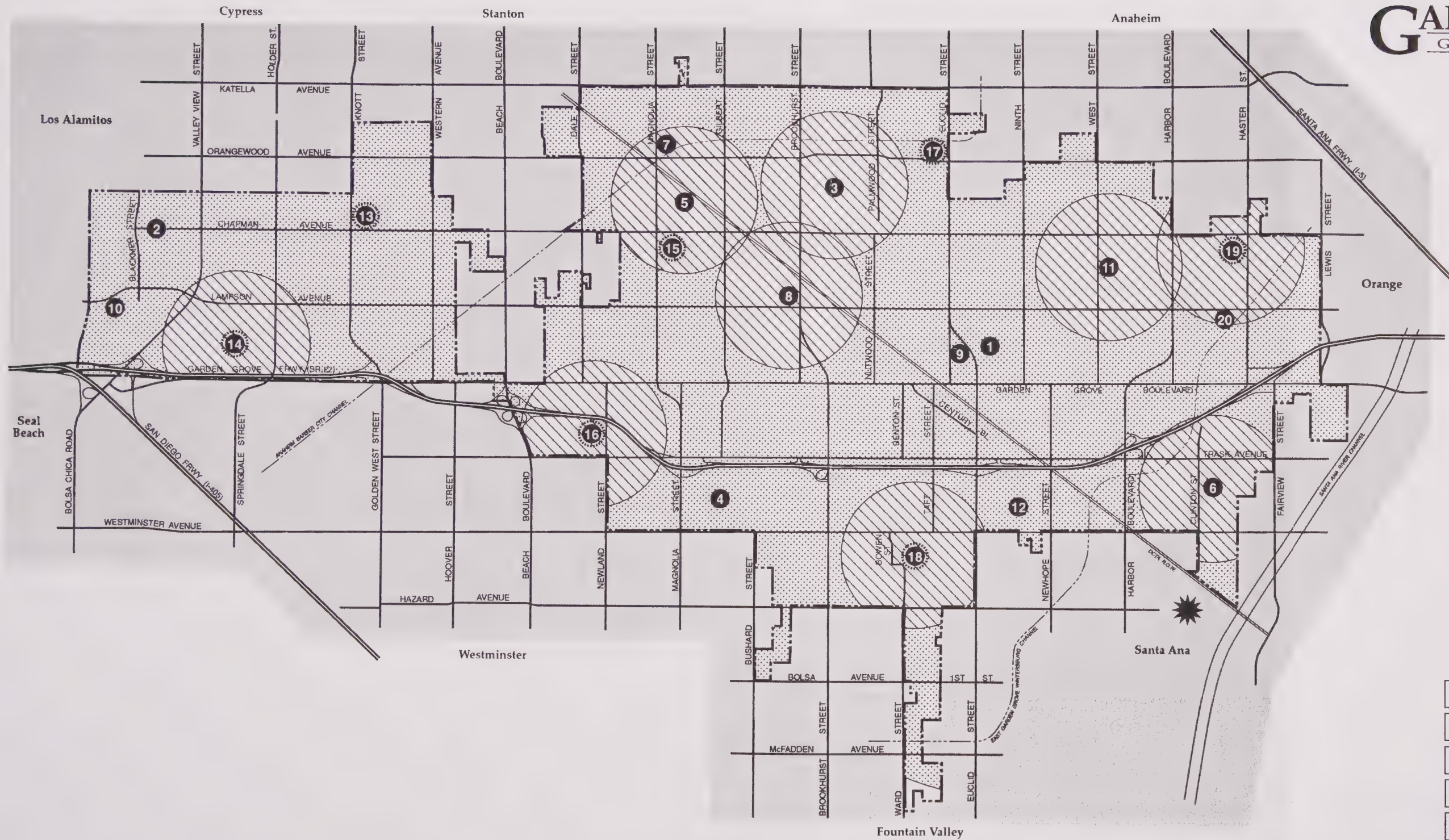
The Willowick Golf Course is a 101-acre, 18-hole public golf course adjacent to the Santa Ana River. The course is owned by the City of Garden Grove, although it is located within the corporate boundary of the City of Santa Ana. The course is leased to a private entity which operates the facility.






Stanley Ranch Museum and Heritage Park

The Stanley Ranch Museum and Heritage Park are located on two acres at 12174 Euclid Avenue; this facility is owned and operated by the Garden Grove Historical Society, a society dedicated to preserving the history of Garden Grove. The park contains the historic Stanley House, other historical structures from the Stanley Ranch, as well as historical structures moved from other areas of the City.

GARDEN GROVE

GENERAL PLAN



-  Neighborhood Park Service Area (Service radius of 0.5 mile)
-  Community Park Service Area (Service radius of 2 miles)
-  Parks
-  Park / School
-  Willowick Municipal Golf Course



Additional information relating to other recreational facilities in Garden Grove can be found in the Existing Conditions Report, Section 3.11.2, Other Recreational Facilities.

4.3 RECREATION PROGRAMS

The Community Services Department offers recreational programs for the community which include: leisure education classes, youth and adult sports, excursions, and activities for senior citizens. Along with these programs, the City offers assistance to community groups in organizing a number of annual events, past events have included the Easter Carnival, Strawberry Festival, Shakespeare Festival, summer concerts, and like festivities.

4.4 BICYCLE TRAIL SYSTEM

Both the City of Garden Grove and the County of Orange have existing and planned bikeway facilities within the City of Garden Grove, as shown on Exhibit 3, *Master Plan of Bikeway Facilities*.

Orange County Bikeway Facilities

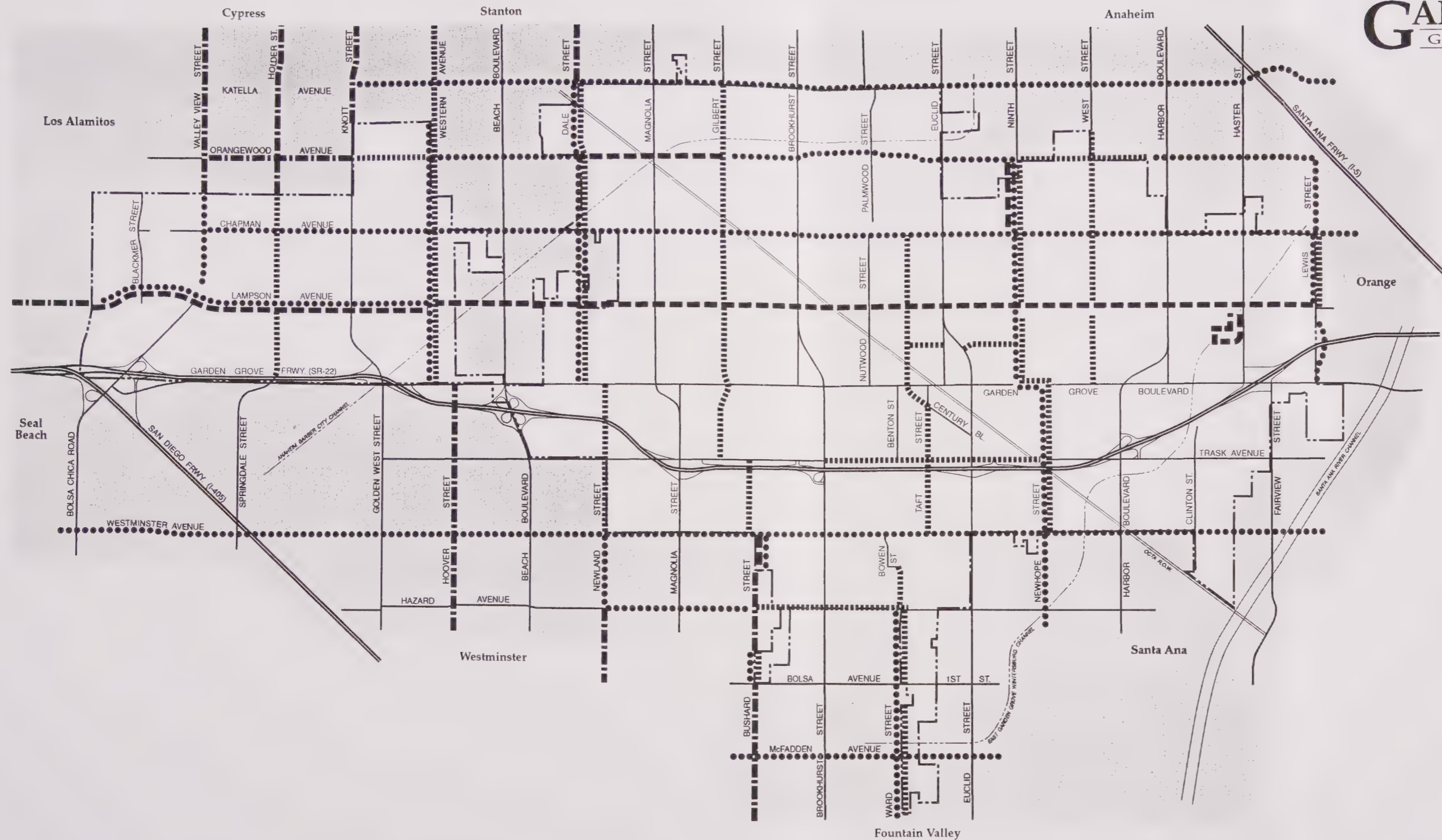
The Orange County Master Plan of Country-wide Bikeways identifies existing and proposed bicycle routes throughout the County. Within Garden Grove, routes are identified along Newhope Street, Orangewood Avenue, Dale Avenue/Newland Avenue, Hazard Avenue, and Western Avenue.

The Santa Ana River Trail is also a bikeway on the County's Master Plan. This regional riding/hiking trail system is a continuous trail from the Pacific Ocean to the San Bernardino National Forest, crossing Orange, Riverside, and San Bernardino Counties. The trail is located adjacent to the Santa Ana River to the east of the City of Garden Grove. In the area of Garden Grove, the trail is located on the west side of the river and consists of a paved, two-way bike trail. The trail system is accessed via City Streets.

Garden Grove Bikeway Facilities

The City's Master Plan of Bikeway Facilities identifies bicycle routes in the City including:

Santa Ana River Trail



Source: City of Garden Grove Master Plan of Bikeway Facilities, July 1992

Master Plan of Bikeway Facilities



0 3800'



- **Class I bikeways** (bike paths) are off-street facilities with exclusive rights-of-way, serving bicycles and pedestrians only. Sidewalk facilities are not considered Class I bikeways because they are primarily intended to serve pedestrians.
- **Class II bikeways** (bike lanes), are for preferential use by bicycles and are established within the paved area of roadways. Bike lane stripes are intended to promote an orderly flow of traffic. Bicycles have exclusive use of a striped and signed bike lane but must share the facility with motor vehicles and pedestrians crossing it. Bike lanes are one-way facilities.
- **Class III bikeways** are intended to provide continuity to the bikeway system. Class III facilities are shared facilities with motor vehicles on the street, with bicycle use as a secondary use. These routes are signed, but not striped.

Existing Bikeways

Existing bikeways in the City include three Class II routes along the following street segments: Lampson Avenue from the City limits on the west to Western Avenue, a short stretch of Ninth Street between Chapman and Orangewood Avenues, and Bushard Street south of Westminster Avenue (east side only) to the southern City limits.

Planned Bikeways

The City's Master Plan of Bikeway Facilities identifies planned routes along: Lampson Avenue, Orangewood Avenue, Stanford Avenue, Hazard Avenue, Trask Avenue, Lewis Street, West Street, Ninth Street/Newhope Street, Nelson Street/Century Boulevard/Taft Street, Ward Street, Bushard Street, Gilbert Street, Dale Street, Newland Street, Western Avenue, and Springdale Street.

Additional information relating to bicycle facilities in Garden Grove can be found in the Existing Conditions Report, Section 3.11.3, Bicycle Trail System, and the City's Master Plan of Bikeway Facilities.

4.5 CHILDREN AND YOUTH SERVICES

Based on a comparison of the 1980 and 1990 Census, the average number of persons per household and persons per family has increased, suggesting higher birthrates in the 1980's. This is supported by the relatively large percentage of the population between the ages of 25 to 45, the prime child bearing years. This trend may continue through the next decade, although the rate of increase may attenuate.

Pre-School Childcare

Over Thirty Public and Private Childcare Providers Within the City

Although the City does not have City-funded childcare programs, there are currently over thirty public and private childcare providers located within the City, some of which provide subsidized programs. In addition to these facilities, there are many small family daycare providers which operate out of private homes.

Subsidized Programs

The School District operates a pre-school program to provide early educational opportunities to residents; this program is for children four years of age with families of limited income. There is also a federally funded Head Start program in Garden Grove which provides a pre-school program for children with special needs or who are from disadvantaged backgrounds.

Youth Services

Numerous Opportunities for the Youth of Garden Grove

The City of Garden Grove has a number of services and activities to meet the needs of children and young adults in the community, including:

- Youth-oriented recreation programs and classes sponsored by the City Community Services Department;
- Boys and Girls Clubs;
- Activities provided through the Girl Scouts and Boy Scouts;
- Youth sports programs, including: Girls Softball, Little League, Pony Colt, AYSO Soccer, Football, Basketball, and Street Hockey; and
- Numerous public and private childcare providers.

City Community Services Department

The Community Services Department provides art and recreational programs for youth and adults in the City. Classes include crafts, dance, cooking, athletic activities (such as exercise classes and children's/ toddler's gymnastics), and youth sports. Sports include youth basketball, and various sport clinics throughout the year. In addition, the California Street Hockey Association operates facilities in the Chapman Sports Complex and Pioneer Park, and Garden Grove Arena Soccer, Inc. operates facilities at Garden Grove Park.

While there are a number of programs and activities available to the children and youth of Garden Grove, these programs and activities could be expanded and publicized more widely in order to continue to provide quality care for the youth of the community.

Additional information relating to children and youth services in Garden Grove can be found in the Existing Conditions Report, Sections 3.12.8, Youth Services and 3.12.9, Childcare.

4.6 SENIOR SERVICES AND FACILITIES

The City of Garden Grove has a large and active senior population. The number of persons over the age of 60 residing in Garden Grove increased by 30% from 1980 to 1990. Correspondingly, the City incorporates a number of services and programs to meet the needs of seniors in the community, including senior-oriented recreation programs and classes sponsored by the City Community Services Department.

Facilities in the City which are specifically oriented to senior activities and services include the following:

- H. Louis Lake Senior Center, a multi-purpose facility which provides leisure, educational, social and recreational activities for the senior population, in addition to services relating to housing, legal aid, medical and health care support, insurance information, counseling, and like services;
- The Senior Meals and Services program which provides meals five days a week at four sites within the community, and delivers meals to homebound seniors;
- The Garden Grove Community Adult Daycare provides daycare for the frail elderly, and for seniors aged 60 and above, and daily activities five days a week;
- The Elderly Korean-Americans of Orange County provides activities and services for older Korean-Americans.

To service the senior population, the City of Garden Grove has over 25 retirement homes, residential care homes, and nursing homes.

Additional information relating to seniors, as well as senior services and facilities in Garden Grove can be found in the Existing Conditions Report, Sections 3.3.2, Age Stratification of Population and 3.12.10, Senior Services and Facilities.

4.7 CULTURAL ARTS

In addition to recreational programs organized by the City Community Services Department, the City has a number of festivals, annual events, and cultural arts programs.

The following provides a summary of the primary activities which have historically occurred in the City on a regular basis.

Performing Arts

- The Grove Theatre Center at Village Green Park,
- Garden Grove Community Theater,
- Orange County Symphony of Garden Grove, and
- The Company Dance Unlimited Ballet Company.

Art

- Art in Public Places Program, and
- Garden Grove Art Guild.

Historic Resources

- Garden Grove Historical Society.

Festivals and Other Celebrations

- Korean Festival and Parade,
- Strawberry Festival, and
- Other celebrations including the Easter Carnival, Christmas programs, and like festivities celebrating the diversity of customs and cultures represented by the people of Garden Grove.

Additional information relating to the cultural arts in Garden Grove can be found in the Existing Conditions Report, Section 3.11.4, Cultural Arts.

4.8 ETHNICITY AND CULTURAL ASPECTS OF THE COMMUNITY

Garden Grove has Seen a Shift in the Ethnic Composition of the Community in Recent Years

As experienced throughout Southern California, Garden Grove has seen a shift in the ethnic composition of the community in recent years. A comparison of the U.S. Census from the years 1980 and 1990 highlights some of these changes. Generally speaking, the white population in the City of Garden Grove has experienced a decrease, from 86% to 67% of the total population, while the non-white population has increased, from 14% to 33% of the population in Garden Grove. The races which experienced the most growth are the Spanish origin (particularly the Mexican population), and the Asian and Pacific Islander (particularly the Vietnamese and Korean populations).

The shift in ethnic composition in Garden Grove is only one aspect of the changing demographic profile of the community; another is the increase in the number of persons over the age of 60 years, discussed previously in this

*There is a Need for
Additional Park and
Recreational Facilities*

Element, and the increase in the number of persons in their prime child bearing years. Recreational and cultural programs need to correspond with the changing demographics of Garden Grove.

Additional information relating to the demographic character of Garden Grove can be found in the Existing Conditions Report, Section 3.3.3, Gender and Race Characteristics.

5. GOALS AND POLICIES

ISSUE

Garden Grove has set a goal to achieve a parkland to population ratio of five acres to 1,000 persons. The City currently has a ratio of 1.07 acres to 1,000 persons. Pursuing the City's standard for the provision of parkland becomes more important as the number of young families residing in Garden Grove increases.

GOAL

1. Increased indoor and outdoor parks and recreational facilities to meet the needs of existing and future residents and workers.

POLICIES

The City should:

- 1.1 Acquire additional land for parks and open space whenever it is financially feasible.
- 1.2 Apply all possible resources to fund parkland acquisition.
- 1.3 Work with neighborhood associations to enable acquisition of vacant land, empty housing lots, or abandoned properties for neighborhood park, pocket park or tot lot purposes, in order to provide all existing neighborhoods with adequate accessible parkland.
- 1.4 Continue to work with the Orange County Flood Control District (OCFCD) and the Garden Grove Unified School District (GGUSD) to maintain and, wherever feasible, expand the joint use facilities within the City.
- 1.5 Promote greater cooperation and coordination with other City departments and public agencies, including the provision of new parks through redevelopment, and the augmentation of new park facilities in developed areas of Garden Grove as infill development occurs.

*Commercial Recreation
Opportunities*

- 1.6 Explore and utilize every possible financing mechanism for the construction of new facilities and the operation and maintenance of existing facilities.
- 1.7 Maximize the use of recreational facilities.
- 1.8 Develop non-traditional approaches to providing supplementary services and programs in areas where there are facility deficiencies.
- 1.9 Maintain ownership of the Willowick Golf Course and continue to work with the golf course operators to maintain and enhance the facility.

Related goals and policies are found in the Land Use Element.

ISSUE

Commercial recreation can expand and enrich citizens' leisure time by offering recreational opportunities that are infeasible to provide in public facilities. Commercial recreational uses would offset the need for additional recreational facilities, and represent a fiscally sensitive alternative to the provision of new park facilities. In addition, Garden Grove residents have expressed interest and support for adding appropriate commercial recreation enterprises within their City.

GOAL

2. Provide a variety of desirable commercial recreation enterprises to Garden Grove.

POLICY

The City should:

- 2.1 Consider amending the Garden Grove Municipal Code to include a commercial recreation zoning designation.

Related goals and policies are found in the Land Use Element.

ISSUE

The OCTA right-of-way has been vacant and barren for several years. The right-of-way offers numerous recreational opportunities, which would not preclude the development of an urban rail system along this corridor.

*The OCTA Right-of-Way
offers Recreational
Opportunities*

GOAL

3. Use of the Orange County Transportation Authority (OCTA) right-of-way for recreational purposes without precluding use of the property for transportation purposes in the future.

POLICY

The City should:

- 3.1 Develop land in the OCTA right-of-way for long-term temporary park use.

Related goals and policies are found in the Land Use and Circulation and Infrastructure Elements.

ISSUE

Residents have indicated that their use of City parks is limited, often citing that maintenance of parks should be improved.

GOAL

4. Enhanced maintenance and rehabilitation of existing park and recreational facilities.

POLICIES

The City should:

- 4.1 Encourage volunteerism and create a greater sense of stewardship for parks within each neighborhood and community through active public involvement programs.
- 4.2 Inventory existing parks and recreation facilities to determine rehabilitation needs through a periodic monitoring program.
- 4.3 Plan fiscally responsible rehabilitation and maintenance strategies.

ISSUE

Most Garden Grove residents indicate that their use of City parks is limited. There are a variety of reasons that citizens give for avoiding parks, but common concerns are the fear of criminal activity and the increased numbers of homeless people found in the parks.

Park Maintenance

Safety in Parks

GOAL

5. Improved safety in the City's parks.

POLICIES

The City should:

- 5.1 Improve police surveillance at Garden Grove parks.
- 5.2 Continue to support citizen programs that fight crime and promote citizen involvement, such as Neighborhood Watch, DARE, "Adopt a Park," and like programs.
- 5.3 Explore, design, and implement vandalism reduction strategies to mitigate or eliminate vandalism of Garden Grove facilities.
- 5.4 Enhance regular, supervised activity at Garden Grove parks.
- 5.5 Address the problem of the increasing numbers of homeless persons resident in Garden Grove parks.

Related goals and policies are found in the Housing and Safety Elements.

ISSUE

High quality programs and well qualified staff are an important focus in the provision of recreational activities offered by the Parks, Recreation and Community Services Department.

GOAL

6. Provide quality recreational programs with well qualified, experienced staff to teach and supervise these programs.

POLICIES

The City should:

- 6.1 Continue to expand and enhance the recreational programs offered to the community.
- 6.2 Continue to recruit experienced and qualified personnel to teach, lead, and/or supervise the various recreational programs offered by the City.
- 6.3 Develop an approach for effectively involving different cultural groups in recreational activities.

Bicycle Trails

- 6.4 Use the City's recreational programs to increase cross cultural experiences.

ISSUE

There are only four existing designated bicycle trails within Garden Grove. In 1992, the City adopted a Master Plan of Bikeway Facilities; this Master Plan provides much needed bicycle facilities within the community, as well as identifies linkages to existing and proposed regional trails. Residents of Garden Grove recognize the importance of bicycle facilities and are supportive of their expansion.

GOAL

7. A safe, attractive and effective network of bicycle facilities within Garden Grove.

POLICIES

The City should:

- 7.1 Implement the Master Plan of Bikeway Facilities, and its amendments.
- 7.2 Continue to encourage existing major traffic generators and require new major traffic generators to incorporate facilities, such as bicycle racks and showers, into their developments.
- 7.3 Sponsor bicycle safety and education programs.
- 7.4 Continue to pursue and monitor funding sources for bikeway facilities.

Related goals and policies are found in the Circulation and Infrastructure Element.

ISSUE

Pedestrian Facilities

The City's pedestrian facilities are comprised of sidewalks along the City's streets and within the City's parks. There is a need for additional pedestrian trails located outside of street right-of-ways.

GOAL

8. Safe, attractive and effective pedestrian facilities within the community.

POLICIES

The City should:

- 8.1 Examine the potential for pedestrian trails which are not within street right-of-ways.
- 8.2 Continue to require pedestrian oriented trails and amenities in parks, new developments and commercial centers.
- 8.3 Explore public and private funding sources to provide additional pedestrian facilities within the City.
- 8.4 Continue to construct sidewalks in all neighborhoods where the sidewalk system is incomplete, and where residents support the addition of sidewalks to their community amenities.

Related goals and policies are found in the Circulation and Infrastructure Element.

ISSUE

The significant rise in the number of full-time working mothers, two income families and single parent households make childcare a necessity for the majority of families with children. The expense of securing quality care for children, the difficulty in procuring reliable information about the quality of care provided, and the dangers of inadequate standards in the provision of child care all present serious obstacles to ensuring the health, safety and welfare of all Garden Grove children.

GOAL

9. Quality care for all Garden Grove children.

POLICIES

The City should:

- 9.1 Expand the supply of quality child care centers in Garden Grove.
- 9.2 Expand the provision of child care for children of low income families, and those with special needs.

- 9.3 Establish standards for quality childcare in Garden Grove.
- 9.4 Provide information to the community on the family care resources within Garden Grove.

ISSUE

The number of persons over the age of 60 residing in Garden Grove increased by 30% from 1980 to 1990. It is important to consider this growing segment of the population in future planning for the City in order to maintain the present level of excellence in senior programs, services and facilities.

GOAL

- 10. Maintain and expand the services available to the senior citizens of Garden Grove.

POLICIES

The City should:

- 10.1 Continue to administer and, wherever feasible, expand upon the programs designed to meet the recreational, social, physical and economic needs of the senior citizens residing in Garden Grove.
- 10.2 Review the City's hiring policies to ensure against age discrimination bias.

ISSUE

Garden Grove has historically been supportive of the cultural arts. The Garden Grove Community Theater, Orange County Symphony, the Company Dance Unlimited Ballet Company, and until recently, the Grove Theater Company with the annual Shakespear Festival, have regularly scheduled productions. In addition, there is the Art in Public Places Program, Garden Grove Art Guild, Mills House Art Gallery, and the Garden Grove Historical Society quartered at Heritage Park, as well as numerous festivals, parades and other celebrations which occur in the City. The community has recognized the importance of these events and activities in the City's Community Improvement Goals and Policies, adopted in 1990, and in subsequent public forums. Maintaining this high level of support for the cultural arts becomes more difficult with constrained public funding resources, and a changing demography within the City.

GOAL

11. Support of the cultural arts programs within the community.

POLICIES

The City should:

- 11.1 Form a Cultural Arts Committee, consisting of representatives from each of the cultural arts and ethnic groups in the community, to aid and assist in the coordination and communication of cultural arts programs in the City.
- 11.2 Review, amend as necessary, and complete the Master Plan for the Village Green.
- 11.3 Examine the potential to re-establish the Mills House Art Gallery.
- 11.4 Ensure that the improvements proposed in the City's Redevelopment Plan, relating to cultural arts facilities within the City are completed.
- 11.5 Continue funding of the Art in Public Places Program and encourage discretion in the selection of art in public places.
- 11.6 Promote local and regional participation in the City's cultural and social activities (i.e., musical and theatrical productions, art exhibitions, etc.) through increased availability of public information and advertising regarding these activities.
- 11.7 Promote and expand the usage of the GEM Theater and the Amphitheater.

Related goals and policies are found in the Land Use Element.

ISSUE

*Ethnicity and Cultural
Aspects of the Community*

The opportunity to experience the foods, products, art, history, culture and friendship of the wide variety of ethnic groups which reside in Garden Grove, potentially, has a very positive impact on the community. The residents of Garden Grove recognize the need to better integrate cultures to reduce language barriers, increase business activity and foster improved communication and understanding among all residents.

GOAL

12. Assimilation of all groups to form a City-wide community.

POLICIES

The City should:

- 12.1 Continue to explore the feasibility of establishing an International Cultural and Commerce Center which would provide for the exchange of products, ideas, and commerce on an international scale.
- 12.2 Examine the feasibility of initiating activities in for-profit retailing of the products of the arts, skills and crafts of ethnic groups in Garden Grove.
- 12.3 Encourage, promote and coordinate with the Garden Grove Unified School District in reestablishing the World Day Program conducted by the School District which received recognition by the United Nations.
- 12.4 Support activities representative of City residents' ethnicity.
- 12.5 Continue to support the Sister City relationship with Anyang, Korea and Taluca, Mexico within Garden Grove.
- 12.6 Work with the appropriate school districts to enhance ESL (English as a Second Language) programs.
- 12.7 Increase the ethnic diversity of citizens participating in local government.
- 12.8 Promote relationships between the various ethnic groups within Garden Grove.
- 12.9 Advertise City programs, activities and events in the newspapers published in the languages of the City's ethnic populations.
- 12.10 Examine the feasibility of providing bi-lingual counseling to recent immigrants to the United States.
- 12.11 Seek the services of the Federal and State Departments of Public Health to dispense free immunization procedures for diphtheria, typhus, tetanus, whooping cough and poliomyelitis for those children enrolled in Garden Grove schools who have not previously benefitted from these disease suppression measures.

ISSUE

It is widely recognized that the City's greatest resources are its citizens. From the fund raising activities associated with the Strawberry Festival to the

*Garden Grove: A
Community of Volunteers*

coalition of churches, agencies and individuals who constitute Real Help of Garden Grove, there are numerous persons who facilitate the programs which provide aid and assistance within the community. It is vitally important to continue to recognize these persons and enhance their efforts.

GOAL

13. Recognize and enhance the efforts of those individuals, organizations and agencies which provide aid and assistance within the community.

POLICIES

The City should:

- 13.1 Continue to support the efforts of Garden Grove's civic and social service organizations.
- 13.2 Recognize the individuals, organizations and agencies who have made a contribution to community life in Garden Grove.

ISSUE

The Americans with Disabilities Act (ADA) was signed into law by President Bush in July, 1990. ADA is civil rights legislation which prohibits discrimination against disabled workers in all aspects of employment, requires access for disabled persons to public accommodations (including public transportation), and requires utilities to provide telecommunication relay services to persons with hearing and speech impairments.

GOAL

14. Compliance with the requirements identified in the Americans with Disabilities Act (ADA).

POLICIES

The City should:

- 14.1 Continue to work with employers with 15 or more employees to ensure that there is no discrimination against qualified individuals with disabilities.
- 14.2 Continue the practice of not discriminating against qualified individuals with disabilities.
- 14.3 Work with the OCTA to ensure transit facilities are accessible.

*The Americans with
Disabilities Act (ADA)*

- 14.4 Continue to support the provision of telecommunications relay services for hearing- and speech-impaired individuals 24 hours per day.
- 14.5 Consider the needs of the disabled when designing park improvements including path surfaces, play equipment and other facility improvements.
- 14.6 Work with structural designers and developers to ensure the accessibility of public accommodations and commercial facilities.

GARDEN GROVE GENERAL PLAN

◆ AIR QUALITY

The City recognizes that a commitment to maintaining high air quality standards cannot be totally met at the local level. Coordination with regional air quality agencies and implementation of a plan and strategy for the South Coast Air Quality Basin is essential in protecting the health of human, animal and plant life from the effects of air contaminants. The City shall actively participate in the development and implementation of regulations to assist in the attainment of the air quality goals for the City, as well as the region.

1. INTRODUCTION

The Air Quality Element is not a mandatory element required by the State to be included in city General Plans. Air Quality is included in the City of Garden Grove General Plan as an optional element because the health of all forms of life within the City is dependent upon the quality of the air which supports that life.

The Federal government, the government of the State of California, and a number of regional agencies have undertaken to improve the air quality of the South Coast Air Basin through a series of plans and implementation measures designed to achieve the goals of the air quality plans. The City of Garden Grove endorses these plans, and participates in their implementation. The nature of the City's support for improved air quality, and its role in achieving it, are the subject of the Air Quality Element.

2. AUTHORITY FOR THE ELEMENT

The State of California General Plan Guidelines state: "In addition to the general plan elements listed in Government Code Section 65302, local governments may adopt 'any other element or address any other subjects which ...relate to the physical development of the county or city' (Government Code Section 65303). Upon adoption, an optional element becomes an integral part of the general plan. It has the same force and effect as the mandatory elements and must be consistent with the other elements in the plan. In turn, zoning, subdivisions, public works and specific plans must be consistent with all optional elements." The Guidelines list six common themes for optional elements in local general plans; air quality is the second of the common themes listed.

3. RELATIONSHIP TO OTHER ELEMENTS

The Air Quality Element relates directly to a number of the other elements within the General Plan.

The Land Use Element provides a map locating all permitted land uses in the City, and the range of activities that are permitted within these locations. Air Quality is directly affected by these land use patterns: isolation and control of land uses which cause air pollution will protect both residential areas and other land uses sensitive to air quality; and land use patterns which minimize internal travel will help to improve air quality.

The Circulation Element may be the element most closely related to Air Quality because the single most important factor in the City's air quality are

the emissions generated by automotive vehicles traveling within the City and its region.

The character, use and location of the City's parks and recreational facilities will be directly affected by the quality of air found within those park and recreational sites.

The Growth Management Element seeks to insure the timeliness of improvements to the infrastructure, including streets and roadways, which will serve planned growth and change. Transportation routes which maximize efficient movement of people and goods and the structural capacities necessary to accommodate unimpeded movement are important to future air quality.

4. SUMMARY OF FINDINGS

Air Quality issues are discussed in detail in Appendix A, Technical Background Report for the Air Quality Element. The following sections are excerpted from that text.

CLIMATE AND AIR QUALITY

The City of Garden Grove is located in an area known as the South Coast Air Basin (SCAB). The Basin is a 6,000 square mile area which includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The SCAB must deal primarily with the pollutants created by the dense population centers, heavy vehicular traffic, and industry.

The SCAB climate is characterized by moderate temperatures and comfortable humidities with precipitation limited to a few storms during the winter season (November through April). The annual temperature varies little throughout the Basin, averaging 75 degrees Fahrenheit.

Annual average relative humidity is 70% at the coast and 57% in the eastern part of the Basin. Precipitation is typically nine to fourteen inches annually in the Basin and is rarely in the form of snow or hail due to warm weather. The frequency and amount of rainfall is greater in the coastal areas of the Basin.

With very light average wind speeds, the Basin's atmosphere has a limited capability to disperse air contaminants horizontally. The dominant daily wind pattern in the Basin is a daily sea breeze and a nighttime land breeze. This regime is broken only by occasional winter storms and infrequent strong northeasterly Santa Ana wind flows from the mountains and deserts north of the Basin.

*Average Temperature - 75
Degrees*

Winds

Temperature Inversions and Smog

Under ideal meteorological conditions and irrespective of topography, pollutants emitted into the air would be mixed and dispersed into the upper atmosphere. However, the Southern California region frequently experiences temperature inversions in which pollutants are trapped and accumulate close to the ground. The inversion, a layer of warm, dry air overlaying cool, moist marine air is a normal condition in the southland. Smog in Southern California is generally the result of these temperature inversions combining with coastal day winds and local mountains to contain the pollutants for long periods of time, allowing them to form secondary pollutants by reacting with sunlight. The Basin has a limited ability to disperse these pollutants due to typically low wind speeds.

Types of Pollutants

Air quality at any location is dependent on the regional air quality and local pollutant sources. Regional air quality is primarily a function of Basin topography and wind patterns, which tend to contain Basin primary pollutants as they react with each other and sunlight to form existing emissions.

Local Air Quality Levels

At the present time, six ambient air pollutants are of special concern in the SCAB: carbon monoxide (CO), ozone (O₃), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), lead (Pb), and fine particulate matter (PM₁₀). The SCAB is currently non-attainment for ozone, nitrogen oxides, and PM₁₀. Non-attainment refers to the fact that the State and/or ambient air quality standards are exceeded in the region.

The State and Federal designations and attainment date for the Orange County portion of the SCAB are indicated in Table 1, *State and Federal Designations and Attainment Dates*.

Pollutant Descriptions

The South Coast Air Quality Management District (SCAQMD) operates several air quality monitoring stations within the Basin. The nearest air quality monitoring station to Garden Grove operated by the SCAQMD is in Anaheim (SCAQMD Source Receptor Area 17). The data collected at this Station is considered to be representative of the air quality experienced in the City of Garden Grove. Air quality data from 1989 to 1993 for the Anaheim Station is provided in Table 2, *Local Air Quality Levels*.

The following air quality information briefly describes the various types of pollutants.

Carbon Monoxide (CO). Carbon monoxide is a colorless and odorless gas. The automobile and other types of motor vehicles are the main source of this pollutant in the SCAB. The State standard of carbon monoxide (CO) is 20.0 ppm (parts per million), averaged over one hour. The maximum one-hour

TABLE 1
STATE AND FEDERAL DESIGNATIONS AND ATTAINMENT DATES

Pollutant	State		Federal	
	Designation	Attainment Date	Designation	Attainment Date
Ozone	Non-attainment	Post 2010	Non-attainment	2010
Carbon Monoxide	Attainment	N/A	Non-attainment	2000
Nitrogen Dioxide	Non-attainment	1997	Non-attainment	1995
Sulfur Dioxide	Attainment	N/A	Attainment	N/A
Fine Particulate Matter (PM10)	Non-attainment	Post 2010	Non-attainment	2006
Sulfates	Attainment	N/A	N/A	N/A
Lead	Attainment	N/A	N/A	N/A
Hydrogen Sulfide	Unclassified	N/A	N/A	N/A
Visibility	Unclassified	N/A	N/A	N/A

N/A: Not applicable.

Unclassified: Insufficient information available to classify pollutant as attainment or non-attainment.

Source: Proposed Amendments to the Area Designations for State Ambient Air Quality Standards with Maps of Area Designations for the State and National Ambient Air Quality Standards, California Environmental Protection Agency, Air Resources Board, September 1994 (approved November 9, 1994); and Final 1994 Air Quality Management Plan, South Coast Air Quality Management District, September 1994.

*Although the SCAB is federally designated as non-attainment, the State has specifically redesignated the Orange County portion of the Basin as attainment.

TABLE 2
LOCAL AIR QUALITY LEVELS MEASURED AT THE ANAHEIM
AMBIENT AIR MONITORING STATION

Pollutant	California Standard	Federal Primary Standard	Year	Maximum ¹ Concentration	Days (Samples) State/Federal Std. Exceeded
CO	20 ppm for 1 hour	35 ppm for 1 hour	1989	19.0	0/0
			1990	17.0	0/0
			1991	21.0	1/0
			1992	15.0	0/0
			1993	15.0	0/0
	9.0 ppm for 8 hours	9.0 for 8 hours	1989	12.1	5/5
			1990	11.7	1/1
			1991	8.6	0/0
			1992	9.4	1/1
			1993	7.7	0/0
Ozone	0.09 ppm for 1 hour	0.12 ppm for 1 hour	1989	0.24	42/13
			1990	0.18	34/11
			1991	0.25	109/21
			1992	0.22	46/22
			1993	0.17	23/3
NO ₂	0.25 ppm for 1 hour	0.053 ppm annual average	1989	0.28	1/0
			1990	0.21	0/0
			1991	0.20	0/0
			1992	0.21	0/0
			1993	0.20	0/0
SO ₂	0.25 ppm for 1 hour	0.03 ppm annual average	1989	0.03	0/0
			1990	0.02*	0/0
			1991	0.03 ⁴	0/0
			1992	0.03 ²	0/0
			1993	0.02 ²	0/0
PM10	50 ug/m ³ for 24 hours	150 ug/m ³ for 24 hours	1989	138.0 ²	(21/0)
			1990	158.0	(20/1)
			1991	146.0	(14/0)
			1992	88.0	(11/0)
			1993	92.0	(13/0)
Total Suspended Particulates	NS (ug/m ³ for 24 hours)	NS (ug/m ³ for 24 hours)	1989	264.0	NS
			1990	422.0	NS
			1991	187.0	NS
			1992	130.0	NS
			1993	147.0	NS

Pollutant	California Standard	Federal Primary Standard	Year	Maximum ¹ Concentration	Days (Samples) State/Federal Std. Exceeded
Sulfates	25 ug/m ³ for 24 hours	None	1989	17.7	0/NS
			1990	18.3	0/NS
			1991	20.6	0/NS
			1992	16.0	0/NS
			1993	15.3	0/NS
Lead	1.5 ug/m ³ for 30-day average	1.5 ug/m ³ for calendar quarter	1989	0.15	0/0
			1990	0.10	0/0
			1991	0.08	0/0
			1992	0.04	0/0
			1993	0.07	0/0

NOTES:

1. Maximum concentration is measured over the same period as the California Standard.
2. Data for Anaheim Station not available. Data is from the Los Alamitos Station.

NM = Not measured.

NS = No standard set.

* Less than 12 months data monitored at Station

ug/m³ = micrograms per cubic meter

Source: Annual Summaries of Air Quality Data for Gaseous and Particulate Pollutants, 1989 through 1993, California Environmental Protection Agency, Air Resources Board.

concentration has fluctuated at the Anaheim Monitoring Station, averaging 17 ppm from 1989 to 1993. The State Standard was exceeded during 1991.

Ozone (O_3). Ozone is one of a number of substances called photochemical oxidants. These oxidants are formed when hydrocarbons and related compounds, also called volatile organic compounds (VOC) and reactive organic gases (ROG) and nitrogen oxides, both by-products of the internal combustion engine, interact in the presence of ultraviolet sunlight. Ozone is present in relatively high levels in this Basin. The State standard for ozone is 0.09 ppm, averaged over 1 hour. The ozone levels at the Anaheim Station have varied yearly from 0.24 ppm in 1989 to 0.17 ppm in 1993. State standard exceedances have ranged from 109 days in 1991 to 23 days in 1993.

Nitrogen Dioxide (NO_2). NO_2 is a by-product of fuel combustion and results from mobile and stationary sources and has complex diurnal concentrations that are typically higher at night. The Basin has relatively low NO_2 concentrations, as very few monitoring stations have exceeded the State standard of 0.25 ppm (one hour) since 1989. However, nitrogen dioxide levels at the Anaheim Station peaked in 1989 at 0.28 ppm, exceeding the State standard on one day. In 1993, the maximum NO_2 level was 0.20 for one hour (below State standard).

Sulphur Dioxide (SO_2). SO_2 is a result of the combustion of sulfur-containing fossil fuels from mobile and stationary sources, diurnal concentrations are complex, but typically are higher at night. The Basin has relatively low SO_2 concentrations, as no Station has exceeded the State standard of 0.25 ppm (1-hour average) since mid-1960. Sulphur dioxide levels at the Anaheim Station have averaged 0.026 ppm (1 hour) over the last five years (State standard is 0.25 ppm for one hour).

Fine Particulate Matter (PM₁₀). PM₁₀ are extremely small suspended particulates or small in diameter (10 microns). (A micron is one millionth of a meter). PM₁₀ arises from sources such as road dust, diesel soot, combustion products, construction operations and dust storms. PM₁₀ scatters light and significantly reduces visibility. Maximum concentrations monitored at the Anaheim Station have fluctuated from 138.0 $\mu g/m^3$ (micrograms per cubic meter) over 24 hours in 1989 to 92 $\mu g/m^3$ in 1993.

Sulphates. Sulphates are due to mobile and stationary sources with high concentrations occurring throughout the year. The highest average concentrations generally occur in the months of July through October, as the period registers many days of high relative humidity, strong photochemical activity and limited vertical mixing, all of which favor the conversion of SO_2 emissions to sulphate. Sulphate concentrations do not show sharp diurnal variation but peak at different times depending on location. The State standard for sulphate concentrations is 25 $\mu g/m^3$, averaged over 24 hours. At

the Anaheim Station, maximum concentrations have fluctuated annually, averaging 18 ug/m³ between 1989 and 1993, never exceeding the State standard.

Visibility. The greatest contribution to visibility reduction in the Basin is from light scattering by "fine particle" aerosols within the size range of 0.1 to 2 microns. Visibility may be impaired by natural or man-made sources, including natural aerosols such as precipitation, fog, soil particles, volcanic emissions, vegetation, sea spray and organic decomposition products, and man-made sources such as sulfates and nitrates. Visibility data is not available for the Anaheim Station.

Total Suspended Particulates (TSP). TSP, resulting primarily from stationary sources, tends to be at higher concentrations in the day but has an unclear seasonal pattern. At the Anaheim Station, total suspended particulate matter maximum concentration peaked at 422 ug/m³ in 1990 and decreased to 147.0 ug/m³ in 1993 (over a 24-hour period).

Lead (Pb). Lead in the atmosphere occurs as particulate matter. Atmospheric lead concentrations have been reduced substantially in recent years due to the lowering of average lead content in gasoline. Exceedances of the State air quality standard for lead (30-day average of 1.50 ug/m³) are now confined to the densely populated portions of Los Angeles County where vehicle traffic is greatest. Leaded gasoline is no longer regularly sold for vehicle use.

AIR QUALITY MANAGEMENT AND STANDARDS

Garden Grove is located in the South Coast Air Basin and, jurisdictionally, is governed by the South Coast Air Quality Management District (SCAQMD) and the California Air Resources Board (CARB). Under the provisions of the Federal Clean Air Act (CAA), the Environmental Protection Agency (EPA) was required to classify each air pollution control district with respect to attainment or non-attainment status. The Basin (Orange County portion) is a non-attainment area for ozone (O₃), nitrogen dioxide (NO₂), and fine particulate matter (PM₁₀). Non-attainment refers to the fact that the Federal and State ambient air quality standards are violated in the region. As a non-attainment region, the region must participate in the State Implementation Plan pursuant to the Federal Clean Air Act and amendments thereto. Both Federal and State Clean Air Acts require the preparation of a plan to reduce pollution to healthful levels.

A revised AQMP which reflected these new requirements from the Federal and State government was adopted by the District on July 12, 1991. The 1991 AQMP was designed to comply with State and Federal requirements and thus reduce the high level of pollutant emission in the SCAB and return

*Air Quality Management
Plan (AQMP)*

return clean air to the region by 2010. The Plan is governed by State and Federal laws and is part of the State Implementation Plan (SIP) submitted to the Environmental Protection Agency (EPA).

To accomplish its task, the AQMP relies on a multi-level partnership of governmental agencies at the Federal, State, regional and local level. These agencies (EPA, ARB, local governments, Southern California Association of Governments (SCAG), and the District) are the cornerstones that implement the AQMP programs.

Current Condition

The 1994 AQMP was released in September 1994, in order to address CAA and CCAA requirements. The more stringent CCAA requirements include:

- Application of Best Available Retrofit Control Technology;
- Reduction of non-attainment pollutants and their precursors at a rate of five percent per year or on an expeditious implementation schedule;
- Achieving an average vehicle ridership during commute hours of 1.5 persons per vehicle by 1999;
- Ensuring no net increase in mobile source emissions after 1997;
- Reducing population exposure to severe non-attainment pollutants according to a prescribed schedule; and
- Ranking control measures by cost-effectiveness and implementation priority.

Control Strategy

The 1994 AQMP includes two tiers of emission reduction measures (short/intermediate and long-term measures), based on availability and readiness of technology. Short- and intermediate-term measures include the application of available technologies and management practices between 1994 and the year 2005. These short- and intermediate-term measures are designed to satisfy the Federal CAA requirement of reasonably available control technologies, and the CCAA requirements of best available retrofit control technologies.

To ultimately achieve ambient air quality standards, further development and refinement of known low- and zero-emission control technologies, in addition to technological breakthroughs, will be necessary. Long-term measures rely on the advancement of technologies and control methods that can reasonably be expected to occur between 1994 and 2010.

SOURCES OF AIR POLLUTANTS

Air pollutants are generated by two types of emission categories within the City: 1) Stationary Sources (both area and point) and 2) Mobile Sources (on-road and off-road). The various types of emission sources are described as follows:

- **Stationary Sources:** Within Orange County, stationary sources produce over 94% of PM10 emissions and 41% of reactive organic gases (which contributes to smog formation).¹ This type of source can be further divided into the following two major subcategories:
 - *Point Sources:* Stationary *point* sources have one or more emission sources at a facility with an identified location and are usually associated with manufacturing and industrial projects. Examples include refinery boilers or combustion equipment that produce electricity or processes heat.
 - *Area Sources:* Stationary *area* sources are widely distributed and produce many small emissions. Examples of such sources include residential water heaters, painting operations, lawn mowers, agricultural fields, landfills, and consumer products like barbecue lighter fluid or hair spray.
- **Mobile Sources:** Mobile sources refer to emissions from vehicle tailpipes, including evaporative emissions, and may be classified as either on-road or off-road.
 - *On-Road Sources:* These sources are considered to be a combination of emissions from automobiles, trucks and indirect sources. Indirect sources are defined as sources that by themselves may not emit air contaminants; however, they indirectly cause the generation of air pollutants by attracting vehicle trips or by consuming energy. Examples of indirect sources include an office complex or commercial center that generates commuter trips and consumes energy resources through the use of electricity for lighting and space heating. Indirect sources include actions proposed by local governments, such as redevelopment districts and private projects involving either large buildings or tract developments. Indirect sources also include those emissions created by the distances vehicles travel. In Orange County, motor vehicles

¹Emission Inventory 1991, California Environmental Protection Agency, Air Resources Board, Technical Support Division, January 1994, Table A-72.

(including on and off road) account for 93% of carbon monoxide emissions and 87% of nitrogen oxide emissions².

- *Off-Road Sources:* Off-road sources include aircraft, ships, trains, and self-propelled construction equipment.

SENSITIVE RECEPTORS

Sensitive populations are more susceptible to the effects of air pollution than are the general population. Sensitive populations (sensitive receptors) who are in proximity to localized sources of toxics and carbon monoxide are of particular concern. Land uses considered sensitive receptors include residences, schools and preschools, parks and playgrounds, child care centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes, as well as hospitals. The SCAQMD provides guidance for local governments to consider when placing proposed sensitive receptors adjacent to land uses with significant CO and toxic emissions. In Garden Grove, existing sensitive receptors are currently located throughout the entire City.

HEALTH EFFECTS OF POLLUTANTS

Several types of pollutants are regulated by the California Clean Air Act and State law. These types include “criteria air pollutants” and “toxic air pollutants.” These categories are monitored and managed differently. Criteria and toxic air pollutants are defined below:

Criteria Air Pollutants are defined as those pollutants for which the Federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations in order to protect public health. The Federal and State standards have been set at levels above which concentrations could be generally harmful to human health and welfare. Table 2, *Local Air Quality Levels*, provides the Federal and State standards for the criteria pollutants.

Toxic Air Pollutants are often termed “non-criteria” because ambient standards have not been established for these specific pollutants. These pollutants are not necessarily different from criteria pollutants but are diverse and their effects on health tend to be local rather than regional. There are hundreds of types of air toxics.

²Ibid.

Criteria Air Pollutants

Criteria air pollutant concentrations are higher in the Basin than any other area of the country. This regional problem exists because of local emission-sources which are the principal cause of elevated levels (such as heavy industry, concentrated population, and dense vehicle traffic) within the SCAB.

“Safe” limits have been established for criteria pollutants (ambient air quality standards) and thresholds for significant levels of emissions can be established relative to the air quality standards threshold levels. Release of criteria pollutants at levels exceeding the standards can cause reversible effects, such as eye irritation and coughing, as well as irreversible health effects including deterioration of lung function. When emissions are kept at or below the accepted threshold levels, no adverse health effects are expected to occur.³

Toxic Air Pollutants

During the past decade, concern has grown over certain air pollutants (other than criteria pollutants) that may cause cancer or otherwise harm human health and the environment. Public interest and hence public policy demand that air toxics and acutely hazardous materials be taken into account. California is required to compile and maintain a list of substances recognized by the CARB as presenting a chronic or acute threat to health when present in the ambient air, including but not limited to, any neurotoxin, or chronic respiratory toxins. Appendix A of this Report includes a Table indicating Toxic Air Contaminants and Acutely Hazardous Materials.

Both the SCAQMD and the City issue permits to sources that could emit toxic air or acutely hazardous contaminants. The District regulates air toxics and hazardous materials by issuing operating permits which limit the amount of emissions. The City of Garden Grove controls the impact of air toxics on sensitive receptors through land use decisions. The District has adopted Rule 1401 which specifies limits for maximum individual cancer cases from new or modified stationary sources which emit carcinogenic air toxics. The City grants discretionary permits for land uses emitting air toxics and issues building permits for the construction of such facilities. Under Assembly Bill (AB) 2588 and District Rule 1401, those sources which could emit toxic emissions as such must prepare a risk assessment to identify the level and area of impact affected by the source. According to a search of the SCAQMD 2588 and 1401 database, only one source in the City submitted a risk assessment in 1991 (Southern California Carton located at 7340 Lampson Avenue). Two facilities (Laminating Company of America located at 7311 Doig Drive and Swedlow Inc. located at 12122 Western Avenue)

³CEQA Air Quality Handbook, SCAQMD, April, 1993, Page 10-1.

submitted risk assessments in 1990. No facilities in the City were reported as submitting risk assessments in 1990.⁴

REGIONAL PLANS

The Southern California Association of Governments (SCAG) is responsible under the Federal Clean Air Act for determining conformity of projects, plans and programs with the SCAQMD Air Quality Management Plan. SCAG recently released the Regional Comprehensive Plan (RCP) (December 1993) for action by SCAG Regional Council. The RCP is a compilation of the summaries of Plans for the Southern California region. It establishes a broad set of goals for the region, and identifies strategies for agencies at all levels to use in guiding their decision-making toward implementation of the proposals.⁵

Policies within the adopted chapters of the RCP are aimed at SCAG's overall goals to 1) improve the regional standard of living, 2) maintain the regional quality of life, and 3) provide social, political and cultural equity.

Implementation Measures

To achieve clean air, some adjustments to our accustomed lifestyle will have to be made. Some of those adjustments will affect how much people drive. The long-term solution is found in one of SCAG's strategic measures: bring housing and jobs closer together so that there will be no need to drive long distances to work. However, until the region can reorganize its jobs and housing, carpools and vanpools can be formed or public transit can be used when traveling to work. Another way to achieve traffic reduction is through telecommunications, which allow people to work at home or in their immediate neighborhoods, rather than traveling on the freeways. Changing working hours and days, and staggering working hours also allows for a better flow of traffic which relieves congestion and creates less pollution.

The growth management measures will need to be implemented through local governments, regional and State agencies, the private sector, and public-interest groups. Implementation will involve many actors, therefore, a key part of the implementation process is to form subregional groups that work together to attain SCAG's performance goals. The year 2010 distributions of population, housing, and jobs for the subregions are used as input for transportation modeling. They allow appraisal of improvements to mobility resulting from reductions in commute distances and travel time, as well as the resulting reductions in air pollution. The important measure of job/housing balance, in the long range, is the ratio of new jobs to new

⁴ Data on Risk Assessments obtained from SCAQMD 1401/AB 2588 database for 1989 - 1991, Public Records Office.

⁵ Draft Regional Comprehensive Plan, Southern California Association of Governments, December 1993, Page xv.

dwelling units in a subregion from 1984 to 2010. This changing ratio is a standard for evaluating progress in achieving job/housing balance. Local governments seek to attain these ratios when making their development decisions, through the mix of implementation strategies most appropriate to their situation.

Although air quality is a regional problem, the AQMP places heavy reliance on local implementation measures, such as land use decisions and local employment transportation programs. The implementation process stresses the freedom of cities to choose attainment measures that best suit local conditions. The fact that areas of Southern California will continue to be job centers and will never be able to provide housing for the majority of people who work there will necessitate keeping residential areas, such as the City of Garden Grove, as bedroom communities. The City is not required to accept the policy that they will remain a commuter or bedroom city inherent in the numbers that are projected by SCAG in the RCP. The City is only required to demonstrate that its programs and policies comply with the intent of SCAG's Plan. It will be up to Garden Grove to decide the job/housing balance that will be most beneficial to the implementation of its long-term goals. However, policies introduced in the General Plan should be consistent with SCAG's broader goals.

5. GOALS AND POLICIES

ISSUE

The City of Garden Grove is located within the South Coast Air Basin (SCAB). Air quality within the Basin is under the purview of a number of Federal, State, and local agencies. In addition, the Basin is managed by a number of local plans including: the South Coast Air Quality Management Plan and SCAG Regional Comprehensive Plan. The SCAB has been in violation of state and federal air quality standards for several pollutants. To attain healthful air quality standards in the region, the City must coordinate with the appropriate agencies and comply with regional planning efforts.

GOAL

1. Air quality which meets state and federal standards.

POLICIES

The City should:

- 1.1 Coordinate with other agencies in the region, particularly the South Coast Air Quality Management District (SCAQMD) and the

Southern California Association of Governments (SCAG), to implement provisions of the region's Air Quality Management Plan (AQMP), as amended.

- 1.2 Achieve conformance with state-mandated transportation demand management (TDM) plans, congestion management plans (CMPs), and federally-required pollution reduction plans.

Related goals and policies are found in the Circulation and Infrastructure and Growth Management Elements.

ISSUE

Many citizens are not aware of the programs in which they can participate which may result in improved air quality.

GOAL

2. Increased community awareness and participation in efforts to reduce air pollution and enhance air quality.

POLICIES

The City should:

- 2.1 Increase public information activities regarding air quality and regional issues.
- 2.2 Promote and encourage ride sharing activities within the community, including such programs as preferential parking, park-and-ride lots, alternative work week/flexible working hours and telecommuting, as well as other trip reduction strategies.
- 2.3 Continue to improve existing sidewalks, bicycle trails, and parkways, and require sidewalk and bicycle trail improvements and parkways for new developments.
- 2.4 Relieve congestion on major arterials and reduce emissions.
- 2.5 Encourage landscape planting and other landscape programs, such as those identified in the Community Design Element, to facilitate nature's means of filtering particulate matter.

Additional goals and policies can be found in the Circulation and Infrastructure, Community Design, and Parks, Recreation and Cultural Activities Elements.

ISSUE

Transportation has been identified as a primary contributor to the poor air quality conditions in the Air Basin. Travel in single occupant vehicles is the preferred mode of transportation, which is the most important single generator of air pollution.

GOAL

3. A diverse and energy efficient transportation system incorporating all feasible modes of transportation for the reduction of pollutants.

POLICIES

The City should:

- 3.1 Cooperate and participate with regional and local efforts to develop an efficient regional transportation system which reduces vehicle trips and vehicle miles traveled (VMT).
- 3.2 Cooperate in efforts to expand and promote the use of bus, rail, and other forms of transit or telecommuting within the region in order to further reduce pollutants.
- 3.3 Implement and maintain a circulation system that is consistent with the County's Master Plan of Arterial Highways, and which guides development and meets local needs.

Related goals and policies are found in the Land Use, Circulation and Infrastructure, and Parks, Recreation and Cultural Activities Elements.

GOAL

4. Efficient development which promotes alternative modes of transportation, while ensuring that economic development goals are not sacrificed.

POLICIES

The City should:

- 4.1 Discourage single-occupancy vehicles and reward high vehicle occupancy without placing the City or businesses at a competitive economic disadvantage.
- 4.2 Periodically review parking requirements and revise as necessary with market demands in relation to air quality guidelines.

- 4.3 Review site developments to ensure safety and promote non-automotive users (e.g., convenient sidewalk locations, bicycle racks, ease of access for pedestrians, etc.).

Related goals and policies can be found in the Circulation and Infrastructure Element.

ISSUE

The jobs-housing balance has become a major planning and public policy issue in recent years within the region. The concept of jobs-housing balance refers to the distribution of employment relative to the distribution of workers within a given geographical area.

GOAL

5. An improved balance of residential, commercial, industrial, recreational, and institutional uses, to satisfy the needs of the social and economic segments of the population and work towards clean air while still permitting reasonable planned growth.

POLICIES

The City should:

- 5.1 Support mixed use developments.
- 5.2 Promote education and training programs within the City to further educate the residents of the community to ensure a quality, local labor force from which local businesses can draw.

For additional goals and policies, please refer to the Land Use, Housing, Growth Management, and Economic Development Elements.

ISSUE

Emissions related to energy consumption are often overlooked as sources of pollutants. Minimizing the amount of energy utilized directly influences the air quality conditions within the region.

GOAL

6. Reduced emissions from residential, commercial and industrial energy consumption.

POLICIES

The City should:

- 6.1 Promote energy conservation and disseminate information throughout the community about energy conservation measures.

Related goals and policies can be found in the Open Space/Conservation and Housing Elements.

ISSUE

While Garden Grove is virtually built-out with few remaining parcels to be developed, particulate emissions associated with paved and unpaved roads, parking lots, use of leaf blowers, as well as road and building construction contribute to the degradation of the City's, and region's, air quality.

GOAL

7. Reduced particulate emissions from paved and unpaved roads, parking lots, and during building construction.

POLICIES

The City should:

- 7.1 Promote green, open spaces on undeveloped properties.
- 7.2 To the extent possible, attempt to reduce particulate emissions from grading, construction, street cleaning, demolition and debris hauling to assist the region in meeting State and Federal standards.
- 7.3 Continue to enforce procedures that control dust from construction, building demolition and grading.
- 7.4 Reduce reactive organic compounds (ROC) and particulate emissions.

Additional goals and policies are found in the Parks, Recreation and Cultural Activities Element.

◆ APPENDIX A

APPENDIX A

TECHNICAL BACKGROUND REPORT FOR THE AIR QUALITY ELEMENT

CLIMATE AND AIR QUALITY

General Setting and Climate

The City of Garden Grove is located in an area known as the South Coast Air Basin (SCAB). The Basin is a 6,000 square mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. Each air basin within California has its own air quality problems. The SCAB must deal primarily with the pollutants created by the dense population centers, heavy vehicular traffic, and industry.

The SCAB climate is characterized by what is known as Southern California's "Mediterranean" climate (a semi-arid environment with mild winters, warm summers and moderate rainfall). The distinctive climate of the SCAB is determined by its terrain and geographical location as the Basin is a coastal plain with connecting broad valleys and low hills. The general region lies in the semi-permanent high pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds.

*Average Temperature - 75
Degrees*

The climate is characterized by moderate temperatures and comfortable humidities with precipitation limited to a few storms during the winter season (November through April). The average annual temperature varies little throughout the Basin, averaging 75 degrees Fahrenheit. However, with a less pronounced oceanic influence, the eastern portion of the Basin shows greater variability in annual minimum and maximum temperatures (for example, City of San Bernardino). All portions of the Basin have had recorded temperatures over 100 degrees in recent years. January is usually the coldest month at all locations while July and August are usually the hottest months of the year. Although the SCAB

has a semi-arid climate, the air near the surface is moist because of the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought into the Basin by off-shore winds, the ocean effect is dominant. Periods with heavy fog are frequent; and low stratus clouds, occasionally referred to as "high fog" are a characteristic climate feature. Annual average relative humidity is 70% at the coast and 57% in the eastern part of the Basin. Precipitation is typically nine to fourteen inches annually in the Basin and is rarely in the form of snow or hail due to typically warm weather. The frequency and amount of rainfall is greater in the coastal areas of the Basin.

Winds

With very light average wind speeds, the Basin's atmosphere has a limited capability to disperse air contaminants horizontally. Downtown Los Angeles wind speed averages 5.7 miles per hour with little seasonal variations. Inland areas record slightly lower wind speeds than downtown Los Angeles, while coastal wind speed average approximately two miles per hour higher than Los Angeles. Summer wind speed averages slightly higher than winter wind speeds. The dominant daily wind pattern in the Basin is a daily sea breeze and a nighttime land breeze. This regime is broken only by occasional winter storms and infrequent strong northeasterly Santa Ana wind flows from the mountains and deserts north of the Basin.

Temperature Inversions and Smog

Under ideal meteorological conditions and irrespective of topography, pollutants emitted into the air would be mixed and dispersed into the upper atmosphere. However, the Southern California region frequently experiences temperature inversions in which pollutants are trapped and accumulate close to the ground. The inversion, a layer of warm, dry air overlaying cool, moist marine air is a normal condition in the southland. The cool, damp and hazy sea air capped by coastal clouds is heavier than the warm, clear air which acts as a lid through which the marine layer cannot rise. The height of the inversion is important in determining pollutant concentration. When the inversion is approximately 2,500 feet above sea level, the sea breezes carry the pollutants inland to escape over the mountain slopes or through the passes. At a height of 1,200 feet, the terrain prevents the pollutants from escaping and it backs up along the foothill communities. Below 1,200 feet the inversion puts a tight lid on pollutants, concentrating them in a shallow layer over the entire coastal basin. Usually, inversions are lower before sunrise than during the daylight hours. Mixing heights for inversions are lower in the summer and more persistent, being partly responsible for the high levels of ozone observed during summer months in the Basin. Smog in Southern California is generally the result of these temperature inversions combining with coastal day winds and local mountains to contain the

pollutants for long periods of time, allowing them to form secondary pollutants by reacting with sunlight. The Basin has a limited ability to disperse these pollutants due to typically low wind speeds.

Types of Pollutants

Air quality at any location is dependent on the regional air quality and local pollutant sources. As noted above, regional air quality is primarily a function of Basin topography and wind patterns, which tend to contain Basin primary pollutants as they react with each other and sunlight to form existing emissions.

Criteria air pollutants are defined as those pollutants for which the Federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations in order to protect public health. The Federal and State standards have been set at levels above which concentrations could be generally harmful to human health and welfare.

Local Air Quality Levels

At the present time, six ambient air pollutants are of special concern in the SCAB: carbon monoxide (CO), ozone (O₃), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), lead (Pb), and fine particulate matter (PM₁₀). The SCAB is currently non-attainment for ozone, nitrogen oxides, and PM₁₀¹. Non-attainment refers to the fact that the State and/or ambient air quality standards are exceeded in the region².

The State and Federal designations and attainment date for the Orange County portion of the SCAB are indicated in Table 1, *State and Federal Designations and Attainment Dates*.

Pollutant Descriptions

The South Coast Air Quality Management District (SCAQMD) operates several air quality monitoring stations within the Basin. The nearest air quality monitoring station to Garden Grove operated by the SCAQMD is in Anaheim (SCAQMD Source Receptor Area 17). The data collected at this Station is considered to be representative of the air quality experienced in of the City of Garden Grove. Air quality data from 1989

¹Although portions of the SCAB are designated as non-attainment for carbon monoxide, Orange County is designated as attainment.

²Proposed Amendments to the Area Designations for State Ambient Air Quality Standards with Maps of Area Designations for the State and National Ambient Air Quality Standards, California Environmental Protection Agency, Air Resources Board, September, 1994 (approved November 9, 1994).

TABLE 1
STATE AND FEDERAL DESIGNATIONS AND ATTAINMENT DATES

Pollutant	State		Federal	
	Designation	Attainment Date	Designation	Attainment Date
Ozone	Non-attainment	Post 2010	Non-attainment	2010
Carbon Monoxide	Attainment	N/A	Non-attainment	2000
Nitrogen Dioxide	Non-attainment	1997	Non-attainment	1995
Sulfur Dioxide	Attainment	N/A	Attainment	N/A
Fine Particulate Matter (PM10)	Non-attainment	Post 2010	Non-attainment	2006
Sulfates	Attainment	N/A	N/A	N/A
Lead	Attainment	N/A	N/A	N/A
Hydrogen Sulfide	Unclassified	N/A	N/A	N/A
Visibility	Unclassified	N/A	N/A	N/A

N/A: Not applicable.

Unclassified: Insufficient information available to classify pollutant as attainment or non-attainment.

Source: Proposed Amendments to the Area Designations for State Ambient Air Quality Standards with Maps of Area Designations for the State and National Ambient Air Quality Standards, California Environmental Protection Agency, Air Resources Board, September 1994 (approved November 9, 1994); and Final 1994 Air Quality Management Plan, South Coast Air Quality Management District, September 1994.

*Although the SCAB is federally designated as non-attainment, the State has specifically redesignated the Orange County portion of the Basin as attainment.

to 1993 for the Anaheim Station is provided in Table 2, *Local Air Quality Levels*.

The following air quality information briefly describes the various types of pollutants.

Carbon Monoxide (CO). Carbon monoxide is a colorless and odorless gas. The automobile and other types of motor vehicles are the main source of this pollutant in the SCAB. The State standard of carbon monoxide (CO) is 20.0 ppm (parts per million), averaged over one hour. The maximum one-hour concentration has fluctuated at the Anaheim Monitoring Station, averaging 17 ppm from 1989 to 1993. The State Standard was exceeded during 1991.

Ozone (O₃). Ozone is one of a number of substances called photochemical oxidants. These oxidants are formed when hydrocarbons and related compounds, also called volatile organic compounds (VOC) and reactive organic gases (ROG) and nitrogen oxides, both by-products of the internal combustion engine, interact in the presence of ultraviolet sunlight. Ozone is present in relatively high levels in this Basin. The State standard for ozone is 0.09 ppm, averaged over 1 hour. The ozone levels at the Anaheim Station have varied yearly from 0.24 ppm in 1989 to 0.17 ppm in 1993. State standard exceedances have ranged from 109 days in 1991 to 23 days in 1993.

Nitrogen Dioxide (NO₂). NO₂ is a by-product of fuel combustion and results from mobile and stationary sources and has complex diurnal concentrations that are typically higher at night. The Basin has relatively low NO₂ concentrations, as very few monitoring stations have exceeded the State standard of 0.25 ppm (one hour) since 1989. However, nitrogen dioxide levels at the Anaheim Station peaked in 1989 at 0.28 ppm, exceeding the State standard on one day. In 1993, the maximum NO₂ level was 0.20 for one hour (below State standard).

Sulphur Dioxide (SO₂). SO₂ is a result of the combustion of sulfur-containing fossil fuels from mobile and stationary sources, diurnal concentrations are complex, but typically are higher at night. The Basin has relatively low SO₂ concentrations, as no Station has exceeded the State standard of 0.25 ppm (1-hour average) since mid-1960. Sulphur dioxide levels at the Anaheim Station have averaged 0.026 ppm (1 hour) over the last five years (State standard is 0.25 ppm for one hour).

TABLE 2
LOCAL AIR QUALITY LEVELS MEASURED AT THE ANAHEIM
AMBIENT AIR MONITORING STATION

Pollutant	California Standard	Federal Primary Standard	Year	Maximum ¹ Concentration	Days (Samples) State/Federal Std. Exceeded
CO	20 ppm for 1 hour	35 ppm for 1 hour	1989	19.0	0/0
			1990	17.0	0/0
			1991	21.0	1/0
			1992	15.0	0/0
			1993	15.0	0/0
	9.0 ppm for 8 hours	9.0 for 8 hours	1989	12.1	5/5
			1990	11.7	1/1
			1991	8.6	0/0
			1992	9.4	1/1
			1993	7.7	0/0
Ozone	0.09 ppm for 1 hour	0.12 ppm for 1 hour	1989	0.24	42/13
			1990	0.18	34/11
			1991	0.25	109/21
			1992	0.22	46/22
			1993	0.17	23/3
NO ₂	0.25 ppm for 1 hour	0.053 ppm annual average	1989	0.28	1/0
			1990	0.21	0/0
			1991	0.20	0/0
			1992	0.21	0/0
			1993	0.20	0/0
SO ₂	0.25 ppm for 1 hour	0.03 ppm annual average	1989	0.03	0/0
			1990	0.02*	0/0
			1991	0.03 ⁴	0/0
			1992	0.03 ²	0/0
			1993	0.02 ²	0/0
PM10	50 ug/m ³ for 24 hours	150 ug/m ³ for 24 hours	1989	138.0 ²	(21/0)
			1990	158.0	(20/1)
			1991	146.0	(14/0)
			1992	88.0	(11/0)
			1993	92.0	(13/0)
Total Suspended Particulates	NS (ug/m ³ for 24 hours)	NS (ug/m ³ for 24 hours)	1989	264.0	NS
			1990	422.0	NS
			1991	187.0	NS
			1992	130.0	NS
			1993	147.0	NS

Pollutant	California Standard	Federal Primary Standard	Year	Maximum ¹ Concentration	Days (Samples) State/Federal Std. Exceeded
Sulfates	25 ug/m ³ for 24 hours	None	1989	17.7	0/NS
			1990	18.3	0/NS
			1991	20.6	0/NS
			1992	16.0	0/NS
			1993	15.3	0/NS
Lead	1.5 ug/m ³ for 30-day average	1.5 ug/m ³ for calendar quarter	1989	0.15	0/0
			1990	0.10	0/0
			1991	0.08	0/0
			1992	0.04	0/0
			1993	0.07	0/0

NOTES:

1. Maximum concentration is measured over the same period as the California Standard.
2. Data for Anaheim Station not available. Data is from the Los Alamitos Station.

NM = Not measured.

NS = No standard set.

* Less than 12 months data monitored at Station

ug/m³ = micrograms per cubic meter

Source: Annual Summaries of Air Quality Data for Gaseous and Particulate Pollutants, 1989 through 1993, California Environmental Protection Agency, Air Resources Board.

Fine Particulate Matter (PM₁₀). PM₁₀ are extremely small suspended particulates or small in diameter (10 microns). (A micron is one millionth of a meter). PM₁₀ arises from sources such as road dust, diesel soot, combustion products, construction operations and dust storms. PM₁₀ scatters light and significantly reduces visibility. Maximum concentrations monitored at the Anaheim Station have fluctuated from 138.0 ug/m³ (micrograms per cubic meter) over 24 hours in 1989 to 92 ug/m³ in 1993.

Sulphates. Sulphates are due to mobile and stationary sources with high concentrations occurring throughout the year. The highest average concentrations generally occur in the months of July through October, as the period registers many days of high relative humidity, strong photochemical activity and limited vertical mixing, all of which favor the conversion of SO₂ emissions to sulphate. Sulphate concentrations do not show sharp diurnal variation but peak at different times depending on location. The State standard for sulphate concentrations is 25 ug/m³, averaged over 24 hours. At the Anaheim Station, maximum concentrations have fluctuated annually, averaging 18 ug/m³ between 1989 and 1993, never exceeding the State standard.

Visibility. The greatest contribution to visibility reduction in the Basin is from light scattering by "fine particle" aerosols within the size range of 0.1 to 2 microns. Visibility may be impaired by natural or man-made sources, including natural aerosols such as precipitation, fog, soil particles, volcanic emissions, vegetation, sea spray and organic decomposition products, and man-made sources such as sulfates and nitrates. Visibility data is not available for the Anaheim Station.

Total Suspended Particulates (TSP). TSP, resulting primarily from stationary sources, tends to be at higher concentrations in the day but has an unclear seasonal pattern. At the Anaheim Station, total suspended particulate matter maximum concentration peaked at 422 ug/m³ in 1990 and decreased to 147.0 ug/m³ in 1993 (over a 24-hour period).

Lead (Pb). Lead in the atmosphere occurs as particulate matter. Atmospheric lead concentrations have been reduced substantially in recent years due to the lowering of average lead content in gasoline. Exceedances of the State air quality standard for lead (30-day average of 1.50 ug/m³) are now confined to the densely populated portions of Los Angeles County where vehicle traffic is greatest. It should be noted that leaded gasoline is no longer regularly sold for vehicle use.

Lead concentrations are typically highest in late fall and winter due to vehicle emissions being trapped by early-morning surface inversions. Lead concentrations vary diurnally with CO, peaking in the early mornings and late evenings. Lead concentrations averaged 0.088 ug/m³ (24-hour period) from 1989 to 1993.

AIR QUALITY MANAGEMENT AND STANDARDS

The project is located in the South Coast Air Basin and, jurisdictionally, is governed by the South Coast Air Quality Management District (SCAQMD) and the California Air Resources Board (CARB). Under the provisions of the Federal Clean Air Act (CAA), the Environmental Protection Agency (EPA) was required to classify each air pollution control district with respect to attainment or non-attainment status. The CAA was amended in November 1990, primarily to overhaul the planning provisions of those areas not currently meeting the National Ambient Air Quality Standards (NAAQS). The CAA identifies specific emission reduction goals, requires both a demonstration of reasonable further progress and an attainment demonstration, and incorporates more stringent sanctions for failure to meet interim milestones. The Basin (Orange County portion) is a non-attainment area (exceeds the NAAQS) for ozone (O₃), nitrogen dioxide (NO₂), and fine particulate matter (PM₁₀). Non-attainment refers to the fact that the Federal and State ambient air quality standards are violated in the region. As a non-attainment region, the region must participate in the State Implementation Plan pursuant to the Federal Clean Air Act and amendments thereto. Both Federal and State Clean Air Acts require the preparation of a plan to reduce pollution to healthful levels.

In accordance with the State Lewis Air Quality Management Act (1976) and the Federal Clean Air Act Amendments, the SCAQMD prepared several Air Quality Management Plans (AQMP). The 1989 AQMP was the first AQMP to define a comprehensive control strategy, achievable attainment dates, and an aggressive rule-making schedule for implementation of the Plan. Even as the 1989 AQMP was being developed, unprecedented population growth and concurrent environmental pollution precipitated passage of the 1988 California Clean Air Act (CCAA) and 1990 amendments to the Federal Clean Air Act (CAA). Both of these laws require stricter controls on pollutants and attainment of air quality standards within specified time frames.

The California Clean Air Act (CCAA) was signed into law on September 30, 1988, became effective on January 1, 1989, and was amended in 1992.

Also known as the "Sher Bill" (AB 2595), the CCAA established a legal mandate to achieve health-based State air quality standards at the earliest practicable date. A revised AQMP which reflected these new requirements from the Federal and State government was adopted by the District on July 12, 1991. The 1991 AQMP was designed to comply with State and Federal requirements and thus reduce the high level of pollutant emission in the SCAB and return clean air to the region by 2010. The Plan is governed by State and Federal laws and is part of the State Implementation Plan (SIP) submitted to the Environmental Protection Agency (EPA). EPA is presently under a court order to prepare a Federal Implementation Plan (FIP) for SCAB which demonstrates attainment of NAAQS for ozone and CO. (The FIP, in draft stage now, is required to be finalized by February 1995.) The Draft FIP contains 30 measures, 18 of which are incorporated into the AQMP and 12 of which would be implemented by EPA. EPA is relying on the State ARB and SCAQMD to complement its efforts.

To accomplish its task, the AQMP relies on a multi-level partnership of governmental agencies at the Federal, State, regional and local level. These agencies (EPA, ARB, local governments, Southern California Association of Governments (SCAG), and the District) are the cornerstones that implement the AQMP programs.

Current Condition

The 1994 AQMP was released in September 1994, in order to address CAA and CCAA requirements. The more stringent CCAA requirements include:

- Application of Best Available Retrofit Control Technology;
- Reduction of non-attainment pollutants and their precursors at a rate of five percent per year or on an expeditious implementation schedule;
- Achieving an average vehicle ridership during commute hours of 1.5 persons per vehicle by 1999;
- Ensuring no net increase in mobile source emissions after 1997;
- Reducing population exposure to severe non-attainment pollutants according to a prescribed schedule; and
- Ranking control measures by cost-effectiveness and implementation priority.

As opposed to the three-tiered structure of measures in the 1991 AQMP, the 1994 AQMP includes two tiers of emission reduction measures (short/intermediate and long-term measures), based on availability and readiness of technology. Short- and intermediate-term measures include the application of available technologies and management practices between 1994 and the year 2005. In the 1991 AQMP, these measures were generally designated as Tier I control measures. These short- and intermediate-term measures are designed to satisfy the Federal CAA requirement of reasonably available control technologies, and the CCAA requirements of best available retrofit control technologies.

To ultimately achieve ambient air quality standards, further development and refinement of known low- and zero-emission control technologies, in addition to technological breakthroughs, will be necessary. Long-term measures rely on the advancement of technologies and control methods that can reasonably be expected to occur between 1994 and 2010. These measures were designated as Tier II and Tier III control measures in the 1991 AQMP.

Because of the EPA's principal authority over many off-road sources, the 1994 AQMP's off-road mobile source control measures are based on the EPA's proposed FIP for the Basin. The FIP's proposed control measures are based on a combination of stringent emission standards, declining caps on emission levels and emission/user fees.

SOURCES OF AIR POLLUTANTS

Air pollutants are generated by two types of emission categories within the City: 1) Stationary Sources (both area and point) and 2) Mobile Sources (on-road and off-road). The various types of emission sources are described as follows:

- **Stationary Sources:** Within Orange County, stationary sources produce over 94% of PM₁₀ emissions and 41% of reactive organic gases (which contributes to smog formation).³ This type of source can be further divided into the following two major subcategories:

³Emission Inventory 1991, California Environmental Protection Agency, Air Resources Board, Technical Support Division, January 1994, Table A-72.

- *Point Sources:* Stationary *point* sources have one or more emission sources at a facility with an identified location and are usually associated with manufacturing and industrial projects. Examples include refinery boilers or combustion equipment that produce electricity or processes heat.
- *Area Sources:* Stationary *area* sources are widely distributed and produce many small emissions. Examples of such sources include residential water heaters, painting operations, lawn mowers, agricultural fields, landfills, and consumer products like barbecue lighter fluid or hair spray.
- **Mobile Sources:** Mobile sources refer to emissions from vehicle tailpipes, including evaporative emissions, and may be classified as either on-road or off-road.
 - *On-Road Sources:* These sources are considered to be a combination of emissions from automobiles, trucks and indirect sources. Indirect sources are defined as sources that by themselves may not emit air contaminants; however, they indirectly cause the generation of air pollutants by attracting vehicle trips or by consuming energy. Examples of indirect sources include an office complex or commercial center that generates commuter trips and consumes energy resources through the use of electricity for lighting and space heating. Indirect sources include actions proposed by local governments, such as redevelopment districts and private projects involving either large buildings or tract developments. Indirect sources also include those emissions created by the distances vehicles travel. In Orange County, motor vehicles (including on and off road) account for 93% of carbon monoxide emissions and 87% of nitrogen oxide emissions⁴.
 - *Off-Road Sources:* Off-road sources include aircraft, ships, trains, and self-propelled construction equipment.

SENSITIVE RECEPTORS

Sensitive populations are more susceptible to the effects of air pollution than are the general population. Sensitive populations (sensitive

⁴Ibid.

receptors) who are in proximity to localized sources of toxics and carbon monoxide are of particular concern. Land uses considered sensitive receptors include residences, schools and preschools, parks and playgrounds, child care centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes, as well as hospitals. The SCAQMD provides guidance for local governments to consider when placing proposed sensitive receptors adjacent to land uses with significant CO and toxic emissions. In this particular case, existing sensitive receptors are currently located throughout the entire City. Please refer to Table 3, *Air Quality Sensitive Receptors*, for the specific locations of air quality sensitive receptors in the City of Garden Grove. The previously described criteria pollutants have the potential to affect human health (Appendix A, Air Quality Data, contains information regarding these effects and the pollutant source).

Table 3, *Air Quality Sensitive Receptors*, lists the names and addresses of sensitive receptors to air pollution located throughout the City.

HEALTH EFFECTS OF POLLUTANTS

Several types of pollutants are regulated by the California Clean Air Act and State law. These types include "criteria air pollutants" and "toxic air pollutants." These categories are monitored and managed differently. Criteria and toxic air pollutants are defined below:

Criteria air pollutants are defined as those pollutants for which the Federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations in order to protect public health. The Federal and State standards have been set at levels above which concentrations could be generally harmful to human health and welfare. Table 2, *Local Air Quality Levels*, provides the Federal and State standards for the criteria pollutants.

Toxic Air Pollutants are often termed "non-criteria" because ambient standards have not been established for these specific pollutants. These pollutants are not necessarily different from criteria pollutants but are diverse and their effects on health tend to be local rather than regional. There are hundreds of types of air toxics.

Criteria air pollutant concentrations are higher in the Basin than any other area of the country. This regional problem exists because of local

Criteria Air Pollutants

TABLE 3
AIR QUALITY SENSITIVE RECEPTORS

Reference No.	Facility	Street Address
HOSPITALS		
1.	Garden Grove Medical Center/Hospital	12601 Garden Grove Boulevard
CHILD CARE		
2.	ABC Pre-School	13201 Century Boulevard
3.	Anderson Day Care	8902 Hewitt Place, 7A
4.	Childtime Child Care	12421 Springdale Street
5.	Christian Center for Family Care, Inc.	12141 Lewis Street
6.	Community Day Nursery of Garden Grove	12211 Magnolia Street
7.	Creative Care Pre-School Children's Center	12012 Magnolia Street
8.	Garden Grove Children's Center	11792 Garden Grove Boulevard
9.	Garden Grove County Day School	9221 Chapman Avenue
10.	Garden Grove U.N. Church Nursery School	12741 Main Street
11.	Garden Grove First Presbyterian Pre-School	11832 Euclid Avenue
12.	Holiday Gardens Pre-School	12132 Haster Street
13.	Lemon Tree Learning Center	10141 Lampson Avenue
14.	Montessori Greenhouse Schools	6202 Cerulean Street
15.	Orange Crescent School	9752 Thirteenth Street
16.	Our Redeemer Lutheran Pre-School	12301 Magnolia Street
17.	Precious Years Pre-School	9691 Bixby Avenue
18.	Rossier Pre-School	11602 Steel Drive
19.	Sandcastles Pre-School	11362 Brookhurst Boulevard
20.	St. Olaf Pre-School	12432 Ninth Street
21.	St. Paul's Lutheran Day Care	13072 Bowen Street
22.	The Children's Village	10531 Westminster Boulevard
23.	Adventure Montessori Preschool and Kindergarten	10551 West McFadden Avenue
24.	Covered Wagon Pre-School	8362 Trask Avenue
25.	Garden Grove Head Start	11250 MacMurray
26.	Garden Grove Nursery School, Inc.	9621 Bixby Avenue

Reference No.	Facility	Street Address
27.	King of Kings Lutheran Day Care	13431 Newhope Street
28.	Lampson Grove Day School	8101 Lampson Avenue
29.	Lollipop Lodge	12853 Palm Street, Suite 310
30.	Montessori Greenhouse School	5856 Belgrave Avenue
31.	Mother's at Work Child Care Center	11231 Chapman Avenue
32.	New Joys in Learning, Inc.	9611 Alwood Avenue
33.	Page School	1211 Buaro Street
34.	Skylark Child Development Center	11250 MacMurray Street
35.	Sonshine Child Care Center	8782 Lampson Avenue
CHURCHES		
36.	First Presbyterian Church	11832 Euclid Street
37.	Garden Grove Community Church	12141 Lewis Street
38.	Garden Grove Korean Baptist Church	8421 Oranewood Avenue
39.	Garden Grove Korean Presbyterian Church	1811 W. Katella Avenue
40.	Assembly of God Church	13201 Century Boulevard
41.	Chapman Avenue Baptist	10241 Chapman Avenue
42.	Episcopal Church	13091 Galway Street
43.	First Baptist Church	12761 Euclid Avenue
44.	Free Will Baptist Church	8782 Lampson Avenue
45.	Nutwood Street Baptist	12291 Nutwood Street
46.	Grace Temple Southern Baptist	12612 Buaro Street
47.	Oranewood Baptist	8421 Oranewood Avenue
48.	West Garden Grove Baptist	5802 Santa Catalina Avenue
49.	St. Callistus Catholic	12921 Lewis Street
50.	St. Columbans	10801 Stanford Avenue
51.	Religious Education	10855 Stanford Avenue
52.	Garden Grove Christian	9822 Russell Avenue
53.	First Christian of Garden Grove	11231 Chapman Avenue
54.	Church of Christ	13211 Fairview Street
55.	Church of Christ	12582 Nelson Street

Reference No.	Facility	Street Address
56.	Church of Christ	13852 Newland Street
57.	Garden Grove Church of God	8362 Trask Avenue
58.	Garden Grove Third Ward	12742 Lampson Avenue
59.	Garden Grove Fourth Ward	10212 Stanford Avenue
60.	Garden Grove Seventh Ward	12160 Valley View Street
61.	St. Anslems Episcopal	13091 Galway Street
62.	Evangelical Free of Garden Grove	13735 Yockey Street
63.	Foursquare Gospel Church	13077 Century Boulevard
64.	Orthodox Presbyterian	9881 Trask Avenue
65.	Free Methodist	9851 Bixby Avenue
66.	Garden Grove Friends Church	12211 Magnolia Street
67.	Village Bible Church	12671 Buaro Street
68.	Kingdom Hall of North Garden Grove	9191 Lampson Avenue
69.	School-Wisconsin Synod	13431 Newhope Street
70.	Our Redeemer Lutheran	12301 Magnolia Street
71.	St. Olaf Lutheran Church	12432 Ninth Street
72.	St. Paul's Lutheran School	13082 Bowen Street
73.	Church of the Nazarene	13411 Euclid Avenue
74.	Church of Tzaddi	8526 Chapman Avenue
75.	Gospel Assembly Church	11711 Trask Avenue
76.	St. Luke's Orthodox Church of Orange County	13261 Dunklee Avenue
77.	St. Luke's Fellowship Center	13261 Dunklee Avenue
78.	Wintersburg Presbyterian	13711 Fairview Street
79.	Crystal Cathedral	12141 Lewis Street
80.	New-Hope Contract Center	12141 Lewis Street
81.	Seventh Day Adventist	12702 Ninth Street
82.	Garden Grove United Church of Christ	9621 Bixby Avenue
83.	United Methodist	12741 Main Street
84.	Jesus Apostolic Community Church	8933 Lampson Avenue
85.	Garden Grove Free Presbyterian	8933 Lampson Avenue

Reference No.	Facility	Street Address
86.	Sae Soon Presbyterian Church	8933 Lampson Avenue
87.	First Church of Christ, Scientist	Dale Street
88.	Grace and Truth Church	Magnolia Street and Chapman Avenue
89.	Assemblies of God / Sae Saem Mool Church	Magnolia Street
90.	Grace Revival Church	12012 Magnolia Street
91.	Guiding Light	12012 Magnolia Street
92.	Evangelical for Mosan Church of Orange County	10750 Lampson Avenue
RETIREMENT HOMES AND RESIDENTIAL CARE HOMES		
93.	Acacia Villa Apartments	10931 Acacia Parkway
94.	Chapman Guest Home	10811 Chapman Avenue
95.	Garden Manor	10200 Chapman Avenue
96.	Garden Manor Apartments	10200 Chapman Avenue
97.	Greenberg Manor	12301 Haster Place
98.	Westbrook Royale Residential Care	13881 Dawson Street
99.	White Cables Lodge	8592 Lampson Avenue
100.	Casa De Esperanza's II	12751 Adrian Circle
101.	Chapman - Harbor Skilled Nursing Center	12232 Chapman Avenue
102.	Feldex Guest Home	10131 Lampson Avenue
103.	Fortune's Guest Home	9061 Oranewood Avenue
104.	Green Meadows Board and Care	12661 Susan Lane
105.	Greenberg Manor No. 2	12391 Euclid Street
106.	Immaculate Rest Homes	9351 Melba Drive
107.	Magnolia Guest Homes	12411 Magnolia Street
108.	Maureen Guest Homes	22861 Maureen Drive
109.	Maureen Guest Homes	22861 Loreleen Street
110.	Petits Amis	13051 Wilson Street
111.	H. Louis Lake Senior Center	11300 Stanford Avenue
NURSING HOMES		
112.	Chapman - Harbor Skilled Nursing Center	12232 Chapman Avenue
113.	Crystal Care Home	12162 Nieta Drive

Reference No.	Facility	Street Address
114.	Garden Grove Convalescent Hospital	12882 Shackelford Lane
115.	Garden Grove Hospital and Medical Center Skilled Nursing Unit	12601 Garden Grove Boulevard
116.	Hallmark Nursing Center Garden Grove	12681 Haster Place
117.	Hy-Lund Home	9861 West 11th Street
118.	Nancy's Guest Village	13902 Clinton Street
119.	Orangethrough Rehabilitation Center	12332 Garden Grove Boulevard
120.	Pacific Haven Healthcare Center	12072 Trask Avenue
121.	Palm Grove Care Center	13075 Blackbird Street
122.	Westbrook Royale Residential Care Home	13881 Dawson Street
REHABILITATION SERVICES		
123.	Knight's Physical Therapy and Rehabilitation Center	13322 Garden Grove Boulevard
124.	Pacific Coast Rehabilitation Inc.	12654 Hoover Street
125.	Watenmaker & Associates	12862 Garden Grove Boulevard
ELEMENTARY SCHOOL SITES		
126.	H.B. Anderson School	8902 Hewitt Place
127.	Iva Meair School	8441 Trask Avenue
128.	Baker Elementary School	12565 Springdale Street
129.	Brookhurst Elementary School	9821 Catherine Avenue
130.	Bryant Elementary School	8371 Orangethrough Avenue
131.	Clinton Elementary School	13641 Clinton Street
132.	Cook Elementary School	9602 Woodbury Road
133.	Crosby Elementary School	12181 West Street
134.	Eisenhower Elementary School	13221 Lily Street
135.	Enders Elementary School	12302 Springdale Street
136.	Evans Elementary School	12281 Nelson Street
137.	Excelsior Elementary School	10432 Woodbury Road
138.	Faylane Elementary School	111731 Morrie Lane
139.	Gilbert Elementary School	9551 Orangethrough Avenue
140.	Hill Elementary School	9681 Eleventh Street

Reference No.	Facility	Street Address
141.	Lampson Elementary School	13321 Lampson Avenue
142.	Lawrence Elementary School	12521 Monroe Street
143.	Mitchell Elementary School	13451 Taft Avenue
144.	Morningside Elementary School	10521 Morningside Drive
145.	Murdy Elementary School	14851 Donegal Drive
146.	Paine Elementary School	15792 Ward Street
147.	Parkview Elementary School	12272 Wilken Way
148.	Patton Elementary School	6861 Santa Rita
149.	Riverdale Elementary School	13222 Lewis Street
150.	Stanford Elementary School	12721 Magnolia Street
151.	Stanley Elementary School	12201 Elmwood Avenue
152.	Sunnyside Elementary School	9972 Russell Avenue
153.	Violette Elementary School	12091 Lampson Avenue
154.	Wanaiham Elementary School	7772 Chapman Avenue
155.	Warren Elementary School	12871 Estock Drive
156.	Woodbury Elementary School	11362 Woodbury Road
157.	Zeyen Elementary School	12081 S. Magnolia
INTERMEDIATE SCHOOLS		
158.	Alamitos	12387 Dale Street
159.	Bell	12345 Springdale Street
160.	Doig	12752 Trask Avenue
161.	Irvine	10552 Hazard Avenue
162.	Jordan	9821 Woodbury Road
163.	Ralston	10851 Lampson Avenue
164.	Peters	13162 Newhope Street
165.	Walton	12181 Buaro Street
HIGH SCHOOLS		
166.	Bolsa Grande High School	9401 Westminster Avenue
167.	Garden Grove High School	11271 Stanford Avenue
168.	Lake High School	10801 Orangewood Avenue

Reference No.	Facility	Street Address
169.	Pacifica High School	6851 Lampson Avenue
170.	Rancho Alamitos High School	11351 Dale Street
171.	Santiago High School	12342 Trask Avenue
YOUTH SERVICES		
126.	City Community Services Department	11391 Acacia Parkway
127.	Girls Club - Main Branch	11421 Garden Grove Boulevard
128.	Kids Club/Patton Kids Club	12461 Springdale Street
129.	Stanford Kids Club	12721 Magnolia Street
130.	Clinton Kids Club	13641 Clinton Street
131.	Boys Club	9860 Larson Avenue
PARKS		
132.	Chapman Sports Complex	Knott Street and Chapman Avenue
133.	Civic Center Park	11391 Acacia Parkway
134.	Eastgate Park	12001 St. Mark Street
135.	Edgar School Park	6203 Cerulean Drive
136.	Faylane Park	11700 Seacrest Drive
137.	Garden Grove Park/Atlantis Play Center	9301 Westminster Avenue
138.	Gutosky Park	9201 Ferris Lane
139.	Hardine Park	Buena Street and Clinton Street
140.	Hare School Park	12012 Magnolia Avenue
141.	Jason McCormick School Park	8441 Trask Avenue
142.	Lake School Park	10801 Oranewood Avenue
143.	Magnolia Park	11402 Magnolia Street
144.	Morningside School Park	10521 Morningside Drive
145.	Pioneer Park	12722 Chapman Avenue
146.	Spirit of '76 Mini Park	Brookhurst Street and Lampson Avenue
147.	Twin Lakes Park	12592 Lampson Avenue
148.	Village Green	12761 Main Street
149.	West Grove Park	5372 Cerulean Drive
150.	West Haven Park	12252 West Street

Reference No.	Facility	Street Address
151.	Woodbury Park	13800 Rosita Place
152.	Willowick Municipal Golf Course	3017 West Fifth Street, Santa Ana

emission-sources which are the principal cause of elevated levels (such as heavy industry, concentrated population, and dense vehicle traffic) within the SCAB. Appendix A, lists the primary emission sources of these criteria pollutants and some of their harmful effects.

"Safe" limits for criteria pollutants have been established for criteria pollutants (ambient air quality standards) and thresholds for significant levels of emissions can be established relative to the air quality standards threshold levels. Release of criteria pollutants at levels exceeding the standards can cause reversible effects, such as eye irritation and coughing, as well as irreversible health effects including deterioration of lung function. When emissions are kept at or below the accepted threshold levels, no adverse health effects are expected to occur.⁵

Toxic Air Pollutants

During the past decade, concern has grown over certain air pollutants (other than criteria pollutants) that may cause cancer or otherwise harm human health and the environment. Public interest and hence public policy demand that air toxics and acutely hazardous materials be taken into account. California is required to compile and maintain a list of substances recognized by the CARB as presenting a chronic or acute threat to health when present in the ambient air, including but not limited to, any neurotoxin, or chronic respiratory toxins. Appendix A of this Report includes a Table indicating Toxic Air Contaminants and Acutely Hazardous Materials.

Both the SCAQMD and the City issue permits to sources that could emit toxic air or acutely hazardous contaminants. The District regulates air toxics and hazardous materials by issuing operating permits which limit the amount of emissions. Local governments (in this case the City of Garden Grove) control the impact of air toxics on sensitive receptors through land use decisions. The District has adopted Rule 1401 which specifies limits for maximum individual cancer cases from new or modified stationary sources which emit carcinogenic air toxics. The City grants discretionary permits for land uses emitting air toxics and issues building permits for the construction of such facilities. Under Assembly Bill (AB) 2588 and District Rule 1401, those source which could emit toxic emissions as such must prepare a risk assessment to identify the

⁵CEQA Air Quality Handbook, SCAQMD, April, 1993, Page 10-1.

level and area of impact affected by the source. According to a search of the SCAQMD 2588 and 1401 database, only one source in the City submitted a risk assessment in 1991 (Southern California Carton located at 7340 Lampson Avenue). Two facilities (Laminating Company of America located at 7311 Doig Drive and Swedlow Inc. located at 12122 Western Avenue) submitted risk assessments in 1990. No facilities in the City were reported as submitting risk assessments in 1990.⁶

REGIONAL PLANS

The Southern California Association of Governments (SCAG) is responsible under the Federal Clean Air Act for determining conformity of projects, plans and programs with the SCAQMD Air Quality Management Plan. As described in Section 6.3, *Growth-Inducing Impacts*, SCAG recently released the Regional Comprehensive Plan (RCP) (December 1993) for action by SCAG Regional Council. The RCP is a compilation of the summaries of Plans for the Southern California region. It establishes a broad set of goals for the region, and identifies strategies for agencies at all levels to use in guiding their decision-making toward implementation of the proposals.⁷

Prior to adoption of the RCP, formal AQMP Conformity Review Procedures were provided by SCAG for local agencies to follow when determining consistency of projects with the AQMP. These guidelines were primarily based on a project's influence on the subregional jobs/housing balance. However, since adoption of the RCP which provides policies for local agencies to adhere to and is not principally based on a project's influence on the jobs/housing balance, the published Conformity Review Procedures no longer apply when determining conformity. SCAG has indicated that following approval of the entire RCP, revised formal Conformity Review Procedures may be published. However, in the meantime, conformity review should be established by comparing projects to the policies contained in the adopted Chapters.⁸

⁶ Data on Risk Assessments obtained from SCAQMD 1401/AB 2588 database for 1989 - 1991, Public Records Office.

⁷ Draft Regional Comprehensive Plan, Southern California Association of Governments, December 1993, Page xv.

⁸ Telephone conversation with Mr. Glenn Blossom, SCAG, September 6, 1994. As of April, 1995, all of the RCP had been formally adopted by SCAG with the exception of the Finance and Air Quality Summary chapters, per telephone conversation with Mr. David Stein, SCAG, April 10, 1995.

Policies within the adopted chapters of the RCP are aimed at SCAG's overall goals to 1) improve the regional standard of living, 2) maintain the regional quality of life, and 3) provide social, political and cultural equity. Selected policies include the following:

- "SCAG shall encourage existing or proposed local jurisdictional programs aimed at designing land uses which encourage the use of transit and thus reduce the need of roadway expansion, reduce the number of auto trips and vehicle miles travelled, and create opportunities for residents to walk or bike."
- "SCAG shall encourage local jurisdictional plans that maximize the use of existing urbanized areas accessible to transit through infill and redevelopment."
- "SCAG shall support local plans to increase density of future development located at strategic points along the regional commuter rail, transit centers and activity centers."
- "SCAG shall encourage efforts of local jurisdictions in the implementation of programs that increase the supply and quality of housing and provide affordable housing as evaluated in the Regional Housing Needs Assessment."⁹

Implementation Measures

To achieve clean air, some adjustments to our accustomed lifestyle will have to be made. Some of those adjustments will affect how much people drive. The long-term solution is found in one of SCAG's strategic measures: bring housing and jobs closer together so that there will be no need to drive long distances to work. However, until the region can reorganize its jobs and housing, carpools and vanpools can be formed or public transit can be used when travelling to work. Another way to achieve traffic reduction is through telecommunications, which allow people to work at home or in their immediate neighborhoods, rather than travelling on the freeways. Changing working hours and days, and staggering working hours also allows for a better flow of traffic which relieves congestion and creates less pollution. A primary goal of the growth management strategy is to reduce the amount of vehicle miles travelled (VMT). VMT is simply the number of average daily vehicle trips multiplied by the length of the trips. By reducing the number of VMT in a subregion, air quality and transportation is improved.

The growth management measures will need to be implemented through local governments, regional and State agencies, the private sector, and public-interest groups. Implementation will involve many actors,

⁹Draft Regional Comprehensive Plan, SCAG, December 1993, Pages 3-22 and 3-34.

therefore, a key part of the implementation process is to form subregional groups that work together to attain SCAG's performance goals. The year 2010 distribution of population, housing, and jobs for the subregions are used as input for transportation modelling. They allow appraisal of improvements to mobility resulting from reductions in commute distances and travel time, as well as the resulting reductions in air pollution. The important measure of job/housing balance, in the long range, is the ratio of new jobs to new dwelling units in a subregion from 1984 to 2010. This changing ratio is a standard for evaluating progress in achieving job/housing balance. Local governments seek to attain these ratios when making their development decisions, through the mix of implementation strategies most appropriate to their situation.

Although air quality is a regional problem, the AQMP places heavy reliance on local implementation measures, such as land use decisions and local employment transportation programs. The implementation process stresses the freedom of cities to choose attainment measures that best suit local conditions. The fact that areas of Southern California will continue to be job centers and will never be able to provide housing for the majority of people who work there will necessitate keeping residential areas, such as the City of Garden Grove, as bedroom communities. The City is not required to accept the policy that they will remain a commuter or bedroom city inherent in the numbers that are projected by SCAG in the RCP. The City is only required to demonstrate that its programs and policies comply with the intent of SCAG's Plan. It will be up to Garden Grove to decide the job/housing balance that will be most beneficial to the implementation of its long-term goals. However, policies introduced in the General Plan should be consistent with SCAG's broader goals.

IMPACT ANALYSIS

Thresholds of Significance

The significance of impacts to air resources is based on item (x) in Appendix G of the CEQA Guidelines. Item (x) states that "a project will normally have a significant effect on the environment if it will violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations."

Impact 5.8-1

Significant short-term air quality impacts will result from construction activities associated with General Plan buildout. Significance:

Significant with mitigation for nitrogen oxides, reactive organic compounds and PM10.

Short-term impacts to air quality would occur during the grading and construction activities required to build out the General Plan (primarily construction associated with new development or redevelopment and related infrastructure). These temporary impacts would include:

- Particulate (fugitive dust) emissions from demolition, clearing and grading activities;¹⁰
- Off-site air pollutant emissions at the power plant serving the construction site, while temporary power lines are needed to operated construction equipment and provide lighting;
- Exhaust emissions and potential odors from construction equipment used on the construction site as well as the vehicles used to transport materials to and from the site;
- Exhaust emissions from the motor vehicles of the construction crew; and
- Potential release of asbestos during building demolition.

The above mentioned power plant and vehicle emissions are generated during construction activities. However, emissions from these sources would continue after project completion as a result of long-term electricity consumption and traffic generated by buildout of the subject site and General Plan buildout. General Plan buildout power plant and motor vehicle emissions are further analyzed in the long-term impacts portion of this Section.

The SCAQMD CEQA Air Quality Handbook establishes thresholds for pollutant emissions generated during construction. Each construction project which will occur with General Plan buildout will be required to implement control measures during construction activities in order to reduce the amount of emissions to below the significance thresholds, when possible. As previously stated, the SCAB (Orange County portion) is designated non-attainment for ozone, nitrogen oxides and PM10. Any increase in these pollutants beyond existing conditions which are beyond the SCAQMD thresholds will create a significant and unavoidable air quality impact.

¹⁰The U.S. EPA estimates that construction activities for large development projects add 1.2 tons of fugitive dust per acre of soil disturbed per month. Dust generated by such activities usually becomes more of a local nuisance than a serious health problem.

General Plan buildout will result in an overall increase in the number of vehicle miles travelled within the City beyond existing conditions. Significance: Cumulatively significant with mitigation for nitrogen oxides, reactive organic compounds, and PM10.

Projected population increases in the City will result in a corresponding increase in the number of automobiles and vehicular pollutants. The primary method of reducing pollutants that result either directly or indirectly from vehicular exhaust (including ozone), is to reduce both the number of vehicular trips and the miles travelled each day by local workers and residents. A large fraction of the remaining stationary pollutants (from electricity and gas consumption) can be reduced through energy conservation. In order to minimize the number of vehicle miles travelled (VMT), land uses could encourage the location of jobs, housing, and shopping areas in such a way as to minimize extra automobile trips. Reductions in vehicular trips as well as vehicular miles can be accomplished over time through the application of wise, long-range planning of land uses that provide comprehensive support for residents and workers, such as shopping and employment.

As explained in more detail in Section 5.2, LAND USE/RELEVANT PLANNING, the population and housing projections contained in the 1973 General Plan Land Use Element have already been exceeded under existing conditions (it can also be assumed that the intensity of development of non-residential uses have also been exceeded). Under existing conditions (which can also be considered existing General Plan buildout), approximately 46,415 dwelling units and 2.6 million square feet of non-residential uses are located within the City. Implementation of the Proposed Plan will permit a maximum of 4,413 additional dwelling units and nearly 9.9 million additional square feet of non-residential uses to be constructed throughout the City upon General Plan buildout beyond existing conditions. Total vehicle miles travelled (VMT) will increase by 2.8 million VMT over existing conditions with buildout under the Proposed Plan.

Mobile source emissions are the major contributors to air pollution in the City of Garden Grove. Table 4, *Daily Air Pollutant Emissions per Development Plan*, indicates the total mobile and stationary source air pollutant emissions under existing conditions, buildout under the existing General Plan (same as existing conditions) and the Proposed Plan. As shown in Table 4, pollutant emissions are anticipated to decrease with implementation of the Proposed Plan when compared to existing conditions (existing General Plan buildout). It should be noted, however, that the decrease in emission levels are not a result of land use policies

TABLE 4
DAILY AIR POLLUTANT EMISSIONS PER DEVELOPMENT PLAN

Pollutant	Existing Conditions (1995)	Existing General Plan Buildout	Proposed Plan
Mobile Sources			
CO	146,671	146,671	73,280
ROC	18,552	18,552	7,230
NOx	13,981	13,981	7,621
Particulates	135	135	196
Stationary Sources			
CO	642	642	742
ROC	142	142	156
NOx	4,284	4,284	4,922
Particulates	66	66	82
Total Mobile and Stationary Sources			
CO	147,313	147,313	74,022
ROC	18,694	18,694	7,386
NOx	18,265	18,265	12,543
Particulates	201	201	278

Source: Mobile source emission factors were based on the CT-EMFAC7 computer model developed by Caltrans. Pounds per day result and emission factors for stationary sources were calculated using the procedures contained in Appendix 9 of the CEQA Air Quality Handbook, SCAQMD, April 1993. Refer to attached detailed assumptions utilized in the analysis.

Notes: The CT-EMFAC7 computer model does not separately calculate PM10 emissions from exhaust particulates emissions. Thus, a worst-case analysis is provided assuming all particulates are PM10. Stationary sources include emissions resulting from power plant and natural gas emissions.

or development levels, but improvements in technology combined with transportation demand management measures over the next 25 years.

Stationary Sources. Stationary source emissions beyond existing conditions would be generated due to an increased for electrical energy, which is generated from power plants utilizing fossil fuels. Electric power generating plants are distributed through the SCAB, and their emissions contribute to the total regional pollutant burden. The primary use of natural gas by the land uses throughout the City would be for combustion to produce space heating, water heating and other miscellaneous heating or air conditioning.

Cumulative Impacts. Air quality impacts are regional and not confined to the Garden Grove City limits. The destinations of motor vehicles, which are the primary contributors to air pollution, vary widely and cross many jurisdictional boundaries. Future site-specific development proposals will be evaluated for potential air emissions as their details are designed. Individual projects may not result in significant air quality emissions although Citywide buildout under the proposed General Plan development scenarios will result in significant cumulative air quality impacts as explained below.

Air pollution impacts from implementation of the Proposed Plan are considered cumulatively significant as they would generate emissions of nitrogen oxides, reactive organic compounds, and PM10 within an area designated as non-attainment for these pollutants. Mitigation measures are recommended which would reduce the significance of such impacts although the impacts will remain significant on cumulative level even after mitigation.

In addition to recommended mitigation measures, several General Plan Elements contain goals and policies which will reduce emissions of air pollution as buildout occurs. For example, the Circulation and Infrastructure Element contains policies that address a range of circulation related issues including efficient street and circulation system, public transportation systems, and non-motorized transportation. Circulation system improvements and the use of alternative modes of transportation will reduce vehicle miles travelled and resultant air pollutant emissions. Other Elements, such as Land Use and Growth Management, also contain policies to reduce vehicle miles travelled. Due to the majority of air pollution generated by motor vehicles, reducing vehicle miles travelled will achieve reductions in air emissions. The City's Conservation/Open Space Element includes policies related to the conservation of energy. All of these policies will serve to reduce the long-term impacts to air quality in the City and the impacts on air quality to the region.

Adoption and implementation of the General Plan air quality policies may help to reduce the additional emissions generated by the future development in the City. However, as stated above, emissions of nitrogen oxides, reactive organic compounds and PM10 will remain significant on a cumulative basis.

Impact 5.8-3

Buildout of the Proposed Plan will not be consistent with the Regional Comprehensive Plan or Air Quality Management Plan. Significance: Unavoidable Adverse Impact.

Although air quality is a regional problem, SCAG's Regional Comprehensive Plan and SCAQMD's AQMP place a heavy reliance on local implementation measures, such as land use decisions and local employment transportation programs. The implementation process stresses the freedom of cities to choose attainment measures that best suit local conditions. Land use strategies recommended in the RCP to help achieve a jobs/housing balance are listed in the Existing Conditions portion of this Report.

Under existing conditions, the County average jobs/housing ratio is 1.45 (1,310,900 jobs¹¹ divided by 908,477 housing units¹²). Cities with a ratio lower than the regional average can be considered "housing rich" while areas with a higher ratio can be considered "jobs rich". The City of Garden Grove can be considered to be "jobs poor" and "housing rich" in that 47,741 jobs are located in the City while 46,447 housing units are provided (ratio of 1.03). Thus, in order to achieve a more balanced jobs/housing ratio which effectively reduces commuting distance to work (thus, fewer VMT), land use decisions by the City should strive to provide addition employment opportunities beyond existing conditions.

Adoption and implementation of the General Plan air quality policies may help to reduce the additional emissions generated by the future development in the City. Because the region's air quality attainment schedule is based on regional growth forecasts by SCAG, the additional population projected for the City will make substantial emission reductions more difficult.

¹¹1995 employment figures based on OCP-92, Modified OCP-92 Employment figures, dated September 14, 1993.

¹²1994 housing figures based on City and County Summary Report of January Population and Housing, Report E-5, published by the California Department of Finance, dated May, 1994.

As indicated in SCAQMD's CEQA Air Quality Handbook, there are two main indicators of consistency:

- Whether the project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP; and
- Whether the project will exceed the assumptions in the AQMP in 2010 or increments based on the year of project build-out and phase.

As previously indicated, General Plan buildout will result in an unavoidable significant cumulative impact from nitrogen oxides, reactive organic compounds, and PM10. Thus, the project is not consistent with the first consistency criterion identified above.

Regarding the second criterion, the RCP developed growth projections based on a City of Garden Grove population of 163,394 in 2015.¹³ The 1994 AQMP was then based on growth projections developed by SCAG. The Proposed Plan anticipates a 2020 buildout population of 166,838. Although SCAG has not released 2020 population projections, a review of SCAG population projections for the City from 2000 to 2015 indicate that the Proposed Plan may allow additional population than projected in the regional plans. As the Proposed Plan anticipates additional population, thus additional vehicle miles travelled, than accommodated in the RCP and AQMP, the Proposed Plan will not be consistent with these regional documents (refer to Section 5.5, POPULATION, HOUSING AND EMPLOYMENT, for additional population figures and analyses). Although mitigation measures are recommended to under Impact 5.8-2 and other elements of the General Plan to reduce the number of vehicle miles travelled in the City, an unavoidable significant impact will still occur.

Impact 5.8-4

Future individual development proposals under the General Plan may locate new land uses near sensitive receptors, particularly schools, thus potentially increasing the level of localized carbon monoxide emissions at these locations beyond existing conditions. Significance: Less than significant.

¹³Per telephone conversation with Mr. Javier Minares, SCAG, April 10, 1995.

Although individual CEQA analysis should be conducted for development projects located near sensitive receptors, buildout of the Proposed Plan is not anticipated to result in significant localized carbon monoxide emissions for the following reasons: 1) the SCAB (Orange County portion) has recently been redesignated to attainment for carbon monoxide; and 2) as indicated in Table 4, *Daily Air Pollutant Emissions*, mobile emission sources of CO are anticipated to decrease by nearly 50% by the year 2020 with General Plan buildout due to improved emission control technologies and traffic demand management.

MITIGATION MEASURES

Mitigation measures can be implemented to reduce short- and long-term air quality impacts. The SCAQMD Final Air Quality Management Plan and CEQA Air Quality Handbook identify the following mitigation measures to reduce generated pollutants. Each individual development which is proposed within the City will require an independent review to determine potential air quality impacts and appropriate mitigation measures. It should be noted that the City maintains the option of implementing alternative mitigation measures as long as the specific air quality goals under each categorical measure are attained.

Construction-Related Measures

The following measures shall be implemented during construction of future projects within the City:

- Adherence to SCAQMD Rule 403, Fugitive Dust, as revised, which includes dust minimization measures such as daily watering of soils, application of non-toxic soils stabilizers, replacement of ground cover in disturbed areas as soon as possible, suspension of excavating and grading operations when wind speeds (or instantaneous gusts) exceed 25 miles per hour, and maintenance of a minimum two feet of freeboard on all trucks hauling dirt, sand, soil or other loose material.
- Sweeping of local streets near construction area;
- Rinsing of wheels on construction vehicles prior to leaving construction area;
- Paving of all construction access roads at least 100 feet on to the site from the main road;
- Use of electricity from power poles rather than temporary diesel or gasoline powered generators; and

- Use of methanol, natural gas, propane or butane-powered on-site mobile equipment rather than diesel or gasoline-powered equipment.

Operation-Related Mobile Source Measures

The following measures shall be implemented by the City to minimize operation-related mobile source emissions or as required by SCAQMD Rules and Regulations:

- Synchronization of traffic lights to minimize vehicle idle time;
- Inclusion of retail services within or adjacent to residential subdivisions;
- Contribution to regional transit systems (e.g., right-of way, capital improvements, etc.) as appropriate;
- Require that all developments within the City with 100 employees or more develop a rideshare program as required under SCAQMD Regulation XV;
- Develop a trip reduction plan to achieve 1.5 average vehicle ridership for businesses with less than 100 employees or multi-tenant worksites;
- Encourage the use of low-emission fleet vehicles;
- Encourage the use of satellite offices rather than regular worksites to reduce vehicle miles travelled;
- Encourage on-site employee services such as cafeterias, banks, etc.;
- Construct additional bus turnouts, passenger benches, or shelters as appropriate;
- Require the construction of on-site bicycle facilities for all new non-residential developments; and
- Require on-site truck loading zones for all new commercial and industrial developments.

Stationary Source Measures

The following measures shall be implemented by the City to minimize operation-related stationary source emissions or as required by SCAQMD Rules and Regulations:

- Use of solar or low-emission water heaters in all new developments;

- Use of energy efficient low-sodium parking lot lights in all new parking areas;
- Use of lighting controls and energy-efficient lighting in all new developments; and
- Require the increase of wall and attic insulation beyond Title 24 requirements in all new developments.

UNAVOIDABLE SIGNIFICANT IMPACTS

Buildout of the General Plan will result in unavoidable significant impacts to nitrogen oxides, reactive organic compounds and PM10 levels within the Basin both on an individual and cumulative basis, and the Proposed Plan will not be consistent with SCAG's Regional Comprehensive Plan and SCAQMD's Air Quality Management Plan.

GARDEN GROVE GENERAL PLAN

◆ GROWTH MANAGEMENT

It is the general objective of the City of Garden Grove to provide, develop and maintain transportation improvements and other public facilities that are necessary to accommodate orderly growth and development.

1. INTRODUCTION

In recent decades, many southern California communities have developed growth management programs in order to promote a wide variety of environmental, social and economic goals. The growth management movement of the 1980's led to the approval by Orange County voters of Measure M, the Traffic Improvement and Growth Management Ordinance in November, 1990. Measure M authorized a one-half cent sales tax for transportation, which has been collected since April 1, 1991. OCTA estimates that Measure M will generate \$3.1 billion over the 20-year life of the ordinance. The revenues generated under this measure will be allocated through a variety of programs to fund freeway, transit, as well as local street and road projects throughout Orange County.

The Measure M Local Turnback Funds may be used for any operations, maintenance, or construction projects on the City's local streets and roads. In addition to local street and road projects, the City may use the Local Turnback Funds for any transportation purpose allowed for under Article XIX of the California Constitution, relating to expenditure of tax revenues.

Pursuant to Measure M policy requirements, cities in Orange County, including Garden Grove, must satisfy the following requirements to be eligible for receiving Measure M funds:

- Adopt a Growth Management Program, as part of the General Plan, that addresses: traffic level of service standards; planning standards for fire, police, library, flood control, parks and open space, and other items as determined by each jurisdiction; a development phasing and monitoring program; participation in interjurisdictional planning forums; development of a Seven Year Capital Improvement program; housing options and job opportunities; and a Transportation Demand Ordinance.
- Adopt a Local Transportation Demand Management Ordinance.
- Agree to expend all Measure M revenues within three years of receipt.
- Adopt a Traffic Circulation Plan (General Plan Circulation Element) consistent with the Orange County Master Plan of Arterial Highways.
- Adopt and fund a Local Pavement Management Plan.
- Satisfy the Maintenance of Effort requirements.
- Adopt a Seven Year Capital Improvement Program.

The City of Garden Grove has complied with the Measure M requirements, including adoption of a Growth Management Element (March, 1992) and a Transportation Demand Management Ordinance (April, 1991), and is eligible for Measure M revenues. This Element reflects an update of the 1992 Growth Management Element.

2. AUTHORITY FOR THE ELEMENT

In addition to the authority granted through Measure M, Government Code Section 65303 states that local governments may adopt "... any other elements or address any other subjects which ... relate to the physical development of the county or city." Upon adoption, an optional element becomes an integral part of the General Plan. It has the same force and effect as the mandatory elements and must be consistent with the other elements of the plan. In turn, zoning, subdivisions, public works projects and specific plans must be consistent with all optional elements.

3. RELATIONSHIP TO OTHER ELEMENTS

This Growth Management Element is a composite statement of several elements of the General Plan (in terms of the growth which is permitted and planned for Garden Grove), particularly the Land Use, Circulation and Infrastructure, Housing, Noise, Air Quality, and Safety Elements. Besides being a composite statement, the Growth Management Element provides another yardstick by which to measure the consistency of projects with the General Plan. Below is a summary of the Growth Management Element's relationship to other Elements of the General Plan.

- Monitored growth patterns established in the Growth Management Element aid the Land Use, Housing and Community Design Elements in guiding the City's future development.
- This Element ensures that transportation and infrastructure facilities and public services are provided concurrent with need, in support of the Circulation and Infrastructure Element.
- The Growth Management Element ensures that the provision of facilities is concurrent with need, thereby preventing growth from occurring in inappropriate places where the health and safety of the community would be comprised, thereby supporting the Safety and Open Space/Conservation Elements.
- The Noise and Air Quality Elements are concerned with the welfare of the public, as is the Growth Management Element.

- The provisions and recommendations of this Element have been made in a fiscally sensitive manner, in support of the Economic Development Element.
- The Parks, Recreation and Cultural Activities Element strives to accommodate future growth in a responsible manner in coordination with the Growth Management Element.

4. SUMMARY OF FINDINGS

4.1 TRANSPORTATION

Regional Transportation Routes

The City's transportation system is greatly influenced by the Garden Grove Freeway (SR-22) and Beach Boulevard (SR-39) which run through the City, as well as the Santa Ana Freeway (I-5) and the San Diego Freeway (I-405) which are adjacent to the City's borders.

Existing Freeway System Deficiencies

A significant portion of the transportation problems in the County stem from the inadequate capacity of the freeway system to serve the peak period travel demands. This lack of capacity has resulted in poor levels of service, characterized by severe congestion and low travel speeds during peak periods. The most severe congestion occurs at the junctions of the 5/22 and the 405/22 Freeways.

Arterial Circulation System

Arterial roadways are intended to handle the bulk of intra-regional traffic and complement the freeway system as well as the local street network. As discussed in the Circulation Element, the City's circulation system consists of Major, Modified Major, Primary and Secondary arterials. The City's goal is to achieve a minimum level of service (LOS) C on its arterials and a LOS D at the intersections of arterials.

Impact of Freeway System on the Arterial Circulation System

As congestion continues to increase on the freeway system, more drivers utilize the arterial system, particularly those parallel to freeways or those arterials serving the same trip destination as the freeways. Consequently, there are a number of roadways and intersections which do not achieve their desired levels of service. Roadways which have an undesirable LOS include:

- Westminster Street - Brookhurst to Euclid Streets,
- Hazard Avenue - Brookhurst to Euclid Streets,
- Magnolia Street - Westminster Avenue to Garden Grove Boulevard,
- Magnolia Street - Chapman to Orangewood Avenues, and
- Haster Street - Lampson to Chapman Avenues.

Intersections currently operating at undesirable or unsatisfactory levels of service include:

Growth Management Areas

- Magnolia Avenue/Chapman Avenue,
- Euclid Street/Westminster Avenue,
- Harbor Boulevard/Trask Avenue, and
- Haster Street/Chapman Avenue.

To enable local jurisdictions to focus their mutual concerns as well as coordinate and implement improvements to accommodate existing and proposed development, the Regional Advisory Planning Committee established Growth Management Areas (GMAs) within the County. The City of Garden Grove is located within three GMAs, GMAs 2, 3 and 6, as shown on Exhibit 1, *Growth Management Areas*. Staff from the cities within each GMA participate in interjurisdictional planning forums. The purpose of these forums is to address transportation issues which have been identified by mutual consensus of the GMA representatives.

Additional information can be found in Chapter Three, Circulation and Infrastructure, of the General Plan, and Section 3.2, Circulation, of the Existing Conditions Report.

4.2 WATER INFRASTRUCTURE

Update of the City's Master Plan Anticipated in 1995

The City's Water System Master Plan was prepared in 1986 to evaluate the City of Garden Grove's existing water system and determine its ability to serve the ultimate needs of the City. The City is currently updating their Water System Master Plan, it is anticipated that the updated Master Plan will be completed in 1995.

The 1986 Plan and the Master Plan of Deficient Water Mains, updated in 1991, have identified the need for several improvements, many of which have been completed. These improvements range from the replacement of four-inch diameter pipes to six-inch diameter pipes and the installation of new water mains, to improvements related to the nitrate blending project, a project which blends high-nitrate well water with high quality groundwater in a City reservoir to lower nitrate levels.

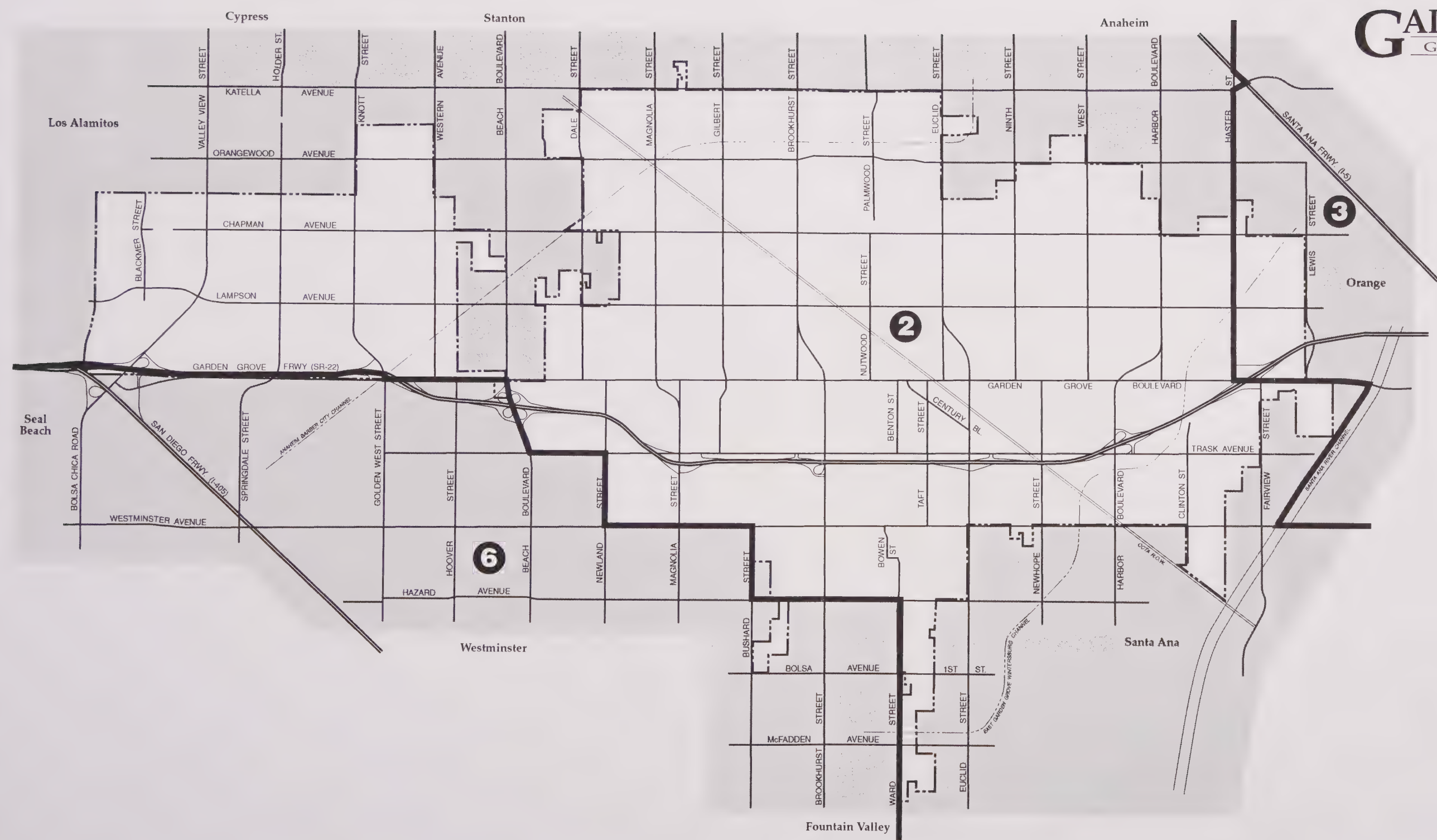
Additional information can be found in Chapter Three, Circulation and Infrastructure, of the General Plan, and Sections 3.6.1, Water Resources, and 3.13.1, Water Infrastructure, of the Existing Conditions Report.

4.3 WASTEWATER INFRASTRUCTURE

The GGSD Sewage Collection System Master Plan prepared in October of 1988 identified deficiencies in the District's sewage collection system. Deficiencies identified in the Master Plan were based on ultimate build-out

GARDEN GROVE

GENERAL PLAN



Growth Management Area (GMA) Boundary

Source: Orange County Division,
League of California Cities,
Regional Planning and
Advisory Council, Res. 91-1



*Garden Grove has 1.08
Sworn Officers per 1,000
Population*

for the construction of any new buildings. This is consistent with Federal Emergency Management Agency (FEMA) policies and guidelines. (A substantial portion of the City lies within the Santa Ana River 100-year flood plain.) Private developments must ensure that public or private storm drains are constructed in conjunction with new developments to meet the goals of the master plan, in addition, these developments must provide 100-year flood protection for new buildings.

Additional information can be found in Chapter Three, Circulation and Infrastructure, of the General Plan, and Section 3.13.3, Storm Drainage, of the Existing Conditions Report.

4.5 POLICE PROTECTION

The City of Garden Grove Police Department is headquartered in the City's Civic Center, with substations located throughout the City. There are approximately 1.08 sworn personnel per 1,000 residents and 0.43 civilian personnel per 1,000 residents. By comparison, a standard of 1.7 officers per 1,000 residents is considered excellent.

As discussed in Chapter Five, the Safety Element of the General Plan, the Police Department is divided into three major components that are designated as Bureaus: the Community Policing Bureau, the Department Services Bureau, and the Administrative Services Bureau. Each Bureau has Divisions and Units responsible for specific tasks.

The Department also has several special programs including: remote substations with translators for the Hispanic, Vietnamese and Korean communities, an officer bicycle program, and the Neighborhood Advisory Network Program. Programs at local schools include: the Drug Abuse Resistance Education (D.A.R.E.) Program, Police Explorer Scouts and School Resource Officers.

*Average Response Time is
4 Minutes, 20 Seconds*

The average emergency response time for the City's Police Department is 4 minutes and 20 seconds for priority calls (from the time the responding unit is dispatched). In comparison, the Orange County Sheriff's Department's estimated average emergency response time is 7.8 minutes or less for priority calls (from the time the dispatcher answers the call).

Additional information can be found in Chapter Four, Safety Element, of the General Plan, and Section 3.12.3, Police, in the Existing Conditions Report.

4.6 FIRE PROTECTION

The City of Garden Grove Fire Department provides fire protection services to the entire City. The City of Garden Grove maintains a comprehensive Automatic Aid Agreement for fire protection services with contiguous Cities,

*Average Response Times
Range Between 4.5 and 6.7
Minutes*

*Department Operates at
the Lowest Per Capita
Cost of any Large City in
the County and has
Achieved One of the
Highest ISO Ratings*

*Three Libraries Serve
Residents*

*The City Currently has a
Parks to Population Ratio
of 1.07 Acres to 1,000
Persons, the City's Goal is
to Achieve Five Acres per
1,000 Persons*

except for the City of Westminster. The City is also a signatory to the California Mutual Aid Fire Protection System. These mutual aid agreements enhance and support the City's fire department capabilities.

Garden Grove is presently served by 29 firefighters stationed during any 24-hour shift, in seven fire stations. Estimated average response times range between 4.5 and 6.7 minutes, depending on the station and equipment responding.

The Garden Grove Fire Department also provides emergency medical services. All fire stations in the City provide basic life support medical services in the event of an emergency. There are four paramedic units which provide advanced life support medical services in the event of an emergency.

The Garden Grove Fire Department operates at the lowest per capita cost of any large city (100,000+ population) in Orange County, yet has achieved an Insurance Service Organization (ISO) rating of Class 2. Additionally, the City's water system was also given a Class 2 rating. The ISO uses a scale of 1 (best protection or lowest threat) to 10 (least protection or highest threat).

Additional information can be found in Chapter Four, Safety Element of the General Plan, and Section 3.12.2, Fire, of the Existing Conditions Report.

4.7 LIBRARY SERVICES

The City of Garden Grove library service is a branch of the Orange County Public Library System which is a member of a cooperative library system, the Santiago Library System. The County provides the Libraries' budget and maintains the buildings' interior space. The City owns the buildings and maintains the exterior. The three facilities which comprise the library system in the City of Garden Grove include the Civic Center Branch in the Downtown area, the Chapman Branch on Chapman Avenue, and the Garden Grove West Branch on Bailey Street.

Additional information can be found in Section 3.12.4, Library Services, of the Existing Conditions Report.

4.8 PARKS AND OPEN SPACE

As discussed in the Parks, Recreation and Cultural Activities Element, the recreational land in the City totals 158.9 acres. The City's target for the ratio of park acres to population is five acres per 1,000 population; the current ratio of park acres to population is 1.07 acres per 1,000 population, below the City's goal. In that the City is virtually built-out and vacant land is almost non-existent, opportunities for new park development are limited.

In addition to the City's parks, the City owns Willowick Golf Course, a 101-acre municipal golf course in the City of Santa Ana.

As discussed in the Open Space/Conservation Element, there are also approximately 761 acres of open space uses which may be suitable for recreational purposes. These uses include schools (in addition to those joint use facilities also used for park purposes), the OCTA right-of-way, SCE easements, vacant properties, the closed landfill at Harbor Boulevard and Chapman Avenue, as well as greenbelts, medians and other public landscaped amenities.

Additional information can be found in Sections 3.1.5, Existing Land Use, and 3.11, Parks, Recreation and Cultural Activities in the Existing Conditions Report, and Chapters Six, Open Space/Conservation, and Twelve, Parks, Recreation and Cultural Activities, of the General Plan.

4.9 SCAG'S REGIONAL COMPREHENSIVE PLAN

The Regional Comprehensive Plan (RCP)

The Southern California Association of Governments (SCAG) recently released the Regional Comprehensive Plan (RCP) (December 1993) for action by the SCAG Regional Council. The RCP is a compilation of the summaries of Plans for the Southern California region. It establishes a broad set of goals for the region, and identifies strategies for agencies at all levels to use in guiding their decision-making.

Policies within the adopted chapters of the RCP are aimed at SCAG's overall goals to: one, improve the regional standard of living; two, maintain the regional quality of life; and three, provide social, political and cultural equity. Selected policies include the following:

- "SCAG shall encourage existing or proposed local jurisdictional programs aimed at designing land uses which encourage the use of transit and thus reduce the need of roadway expansion, reduce the number of auto trips and vehicle miles traveled, and create opportunities for residents to walk or bike."
- "SCAG shall encourage local jurisdictional plans that maximize the use of existing urbanized areas accessible to transit through infill and redevelopment."
- "SCAG shall support local plans to increase density of future development located at strategic points along the regional commuter rail, transit centers and activity centers."

- “SCAG shall encourage efforts of local jurisdictions in the implementation of programs that increase the supply and quality of housing and provide affordable housing as evaluated in the Regional Housing Needs Assessment.”¹

5. GOALS AND POLICIES

ISSUE

To receive Measure M funds, the City’s Growth Management Element must address traffic level of service standards, a Transportation Demand Ordinance; and participation in interjurisdictional planning forums.

GOAL

1. An adequate circulation system with an acceptable traffic level of service within Garden Grove.

POLICIES

The City should:

- 1.1 Strive to achieve a minimum traffic LOS D throughout the City, except for major development areas at those intersections which are impacted by factors beyond the City’s control or at those intersections included on the Deficient Intersection List.
- 1.2 Improve those intersections which are impacted by factors beyond the control of the City and which operate at an unacceptable LOS.
- 1.3 Continue to implement the provisions of the Transportation Demand Ordinance.
- 1.4 Continue to participate in interjurisdictional planning forums, in order to coordinate circulation improvements in the area.
- 1.5 Continue to meet Measure M policy requirements to ensure the City's eligibility to receive Measure M funds.
- 1.6 Adopt the Circulation Element, and ensure it’s consistency with the Orange County Master Plan of Arterial Highways (MPAH).

¹Draft Regional Comprehensive Plan, SCAG, December 1993, pages 3-22 and 3-34.

*Service Levels Related to
Public Services and
Facilities*

ISSUE

To receive Measure M funds, the City's Growth Management Element must address planning standards for fire, police, libraries, flood control, parks and open space, and other items as determined by each jurisdiction.

GOAL

2. Satisfactory levels of service related to public facilities and services.

POLICIES

The City should:

- 2.1 Maintain, and improve when possible, the water infrastructure facilities within the City.
- 2.2 Maintain, and improve when possible, the wastewater infrastructure facilities within the community.
- 2.3 Maintain, and improve when possible, the storm drainage facilities within the City.
- 2.4 Maintain, and improve when possible, police service in the community and the average emergency response time for police services.
- 2.5 Maintain, and improve when possible, fire protection services in the community and the average emergency response time for fire protection services.
- 2.6 Encourage the County to maintain the three branch libraries within the City.
- 2.7 Strive to improve the existing parkland to population ratio.

Related goals and policies are found in the Land Use, Circulation and Infrastructure, Open Space/Conservation, Safety, and the Parks, Recreation and Cultural Activities Elements.

ISSUE

The Growth Management Element must address a development phasing and monitoring program in order for the City to receive Measure M funds.

GOAL

3. A Citywide development phasing and monitoring program as required by the City's Growth Management Plan.

*Development Phasing and
Monitoring Program*

*Seven Year Capital
Improvement Program*

POLICIES

The City should:

- 3.1 For all new development projects, continue to require a development phasing plan which phases approval of development commensurate with required improvements.
- 3.2 Ensure that adequate time is allocated to design and construct infrastructure, specifically transportation improvements, for approved development projects.
- 3.3 Maintain the annual performance monitoring program of the development phasing plans within the City.

Related goals and policies are in the Land Use and Circulation and Infrastructure Elements.

ISSUE

The Growth Management Element must also address the development of a Seven Year Capital Improvement Program in order for the City to receive Measure M funds.

GOAL

4. A satisfactory Seven Year Capital Improvement Program.

POLICIES

The City should:

- 4.1 Ensure that the Seven Year Capital Improvement Program meets the City's needs.
- 4.2 Ensure that the Seven Year Capital Improvement Program meets Measure M requirements.

Related goals and policies are in the Land Use and Circulation and Infrastructure Elements.

ISSUE

Reduced Vehicle Trips

SCAG has identified three overall goals for the region: one, improve the standard of living; two, maintain the regional quality of life; and three, provide social, political and cultural equity. Many of the policies provided to implement these goals focus on the reduction of vehicle miles traveled.

GOAL

5. A reduction in vehicle miles traveled in order to create a more efficient urban form.

POLICIES

The City should:

- 5.1 Strive toward achieving a balance of land uses whereby residential, commercial and public land uses are proportionally balanced.
- 5.2 Strive to reduce the number of miles traveled by residents to their places of employment.
- 5.3 Encourage the reduction in vehicle miles traveled through the approval of mixed use development proposals.

Related goals and policies are found in the Land Use, Circulation and Infrastructure, and Air Quality Elements.

ISSUE

Development of Mitigation Program

A development mitigation program is critical in support of growth management practices.

GOAL

6. A satisfactory development mitigation program.

POLICIES

The City should:

- 6.1 Continue to require all new development to contribute, on a pro rata basis, to improvement costs associated with that development, including regional traffic mitigation.
- 6.2 On a periodic basis, review development fees to ensure their adequacy in providing the services and facilities identified above.
- 6.3 Ensure that new development incorporates and implements the appropriate mitigation for that development.

Related goals and policies are found in the Land Use, Housing, Circulation and Infrastructure, and Economic Development Elements.

GARDEN GROVE GENERAL PLAN

◆ GLOSSARY

100 Year Flood	A flood with a probability of occurring once every 100 years.
Acres, Gross	The entire acreage of a site. Most communities calculate gross acreage to the centerline of proposed bounding streets and to the edge of the right-of-way of existing or dedicated streets.
Acres, Net	The portion of a site that can actually be built upon. The following generally are not included in the net acreage of a site: public or private road rights-of-way, public open space, and flood ways.
Adaptive Reuse	The conversion of obsolescent or historic buildings from their original or most recent use to a new use. For example, the conversion of former hospital or school buildings to residential use, or the conversion of an historic single-family home to office use.
Affordable Housing	Housing is considered affordable to all households if it costs no more than 30% of the gross monthly income for rents and up to 3.0 times the annual income for purchasing a home; these are the standards used by the federal and state government, as well as the majority of lending institutions.
Agriculture	Use of land for the production of food and fiber, including the growing of crops and/or the grazing of animals on natural prime or improved pasture land.
Air Basin	One of fourteen self-contained regions, minimally influenced by air quality in contiguous regions, within which atmospheric and source interaction occurs.
Air Pollutant Emissions	Discharges into the atmosphere, usually specified in terms of weight per unit of time for a given pollutant from a given source.
Air Quality Management Plan (AQMP)	A plan to achieve and maintain ambient air quality standards in jurisdictions designated by the state legislature.
Air Quality Standard	A health-based standard for air pollution established by the federal government and the state.
Alley	A narrow service way, either public or private, that provides a permanently reserved but secondary means of public access not intended for general traffic circulation. Alleys typically are located along rear property lines.
Alquist-Priolo Special Studies Zone	A delineated area along all known active earthquake faults. These zones were established by the Alquist-Priolo Special Studies Act (Public Resources Code Division, Chapter 7.5). The purpose of the Act is to require cities and counties to adopt procedures for review of development proposals within fault zones designated by the State Geologist.
Alluvium	Surficial sediments of poorly consolidated gravel, sand, silt and clay deposited by flowing water.

Ambient Air Quality	The quality of the air at a particular time and place.
Ambient Noise Level	The composite of noise from all sources near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.
Annex	To incorporate a land area into an existing district or municipality, with a resulting change in the boundaries of the annexing jurisdiction.
Apartment	One or more rooms of a building used as a place to live, in a building containing at least one other unit used for the same purpose. Or a separate suite, not owner occupied, that includes kitchen facilities and is designed for and rented as the home, residence, or sleeping place of one or more persons living as a single housekeeping unit.
Aquifer	Porous underground layers of sand and gravel where groundwater is stored.
Archaeological	Relating to the material remains of past human life, culture, or activities.
Arterial	A major street carrying the traffic of local and collector streets to and from freeways and other major streets, with controlled intersections and generally providing direct access to properties.
Assisted Housing	Generally multi-family rental housing, but sometimes single-family ownership units, whose construction, financing, sales prices, or rents have been subsidized by federal, state, or local housing programs including, but not limited to Federal Section 8 (new construction, substantial rehabilitation, and loan management set-asides, Federal Sections 213, 236, and 202, Federal Section 221(d)(3) (below-market interest rate program), Federal Section 101 (rent supplement assistance), CDBG, FmHA Section 515, multi-family mortgage revenue bond programs, local redevelopment and in lieu fee programs, and units developed pursuant to local inclusionary housing and density bonus programs. By January 1, 1992, all California Housing Elements are required to address the preservation or replacement of assisted housing that is eligible to change to market rate housing by 2002.
Auto Mall	A single location that provides sales space and centralized services for a number of automobile dealers, and may include such related services as auto insurance dealers and credit institutions that provide financing opportunities.
Average Daily Traffic (ADT)	The total volume of traffic on a given road during a specific time period.

Below-Market-Rate

Any housing unit specifically priced to be sold or rented to low- or moderate-income households for an amount less than the fair-market value of the unit. Both the State of California and the U.S. Department of Housing and Urban Development set standards for determining which households qualify as "low income" or "moderate income." Or the financing of housing at less than prevailing interest rates.

Bicycle Lane (Class II Facility)

A corridor expressly reserved for bicycles, existing on a street or roadway in addition to any lanes for use by motorized vehicles.

Bicycle Path (Class I Facility)

A paved route not on a street or roadway and expressly reserved for bicycles traversing an otherwise unpaved area. Bicycle paths may parallel roads but typically are separated from them by landscaping.

Bicycle Route (Class III Facility)

A facility shared with motorists and identified only by signs, a bicycle route has no pavement markings or lane stripes.

Bikeways

A term that encompasses bicycle lanes, bicycle paths, and bicycle routes.

Blight

A condition of a site, structure, or area that may cause nearby buildings and/or areas to decline in attractiveness and/or utility. The Community Redevelopment Law (Health and Safety Code, Sections 33031 and 33032) contains a definition of blight used to determine eligibility of proposed redevelopment project areas.

Branding

The spread of fire by wind transported embers.

Buffer Zone

An area of land separating two distinct land uses that acts to soften or mitigate the effects of one land use on the other.

Building

Any structure used or intended for supporting or sheltering any use or occupancy.

Building Height

The vertical distance from the average contact ground level of a building to the highest point of the coping of a flat roof or to the deck line of a mansard roof or to the mean height level between eaves and ridge for a gable, hip, or gambrel roof. The exact definition varies by community. For example, in some communities building height is measured to the highest point of the roof, not including elevator and cooling towers.

Build-Out

Development of land to its full potential or theoretical capacity as permitted under current or proposed planning or zoning designations.

California Environmental Quality Act (CEQA)

State legislation adopted in 1970 which ensures the protection of the environment. This legislation also required California governmental agencies, at all levels, to develop standards and procedures necessary to protect environmental quality.

Capital Improvement Program (CIP)

The CIP outlines a seven-year list of capital projects to be undertaken by the City. The program contains: one, the proposed project improvement; two, the funding source; and three, the estimated cost in current dollars.

Carbon Dioxide	A colorless, odorless, non-poisonous gas that is a normal part of the atmosphere.
Carbon Monoxide	A colorless, odorless, highly poisonous gas produced by automobiles and other machines with internal combustion engines that imperfectly burn fossil fuels such as oil and gas.
Carrying Capacity	Used in determining the potential of an area to absorb development: one, the level of land use, human activity, or development for a specific area that can be accommodated permanently without an irreversible change in the quality of air, water, land, or plant and animal habitats; two, the upper limits of development beyond which the quality of human life, health, welfare, safety, or community character within an area will be impaired; and/or three, the maximum level of development allowable under current zoning.
Class C Roofing Materials	Organic felt saturated and coated with asphalt with mineral surfacing materials.
Community Noise Equivalent Level (CNEL)	The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and after addition of 10 decibels to sound levels in the night before 7:00 a.m. and after 10:00 p.m.
Collector	A street for traffic moving between arterial and local streets, generally providing direct access to properties.
Community Development Block Grant (CDBG)	Federal allocation of funds to a jurisdiction for discretionary disbursement, generally utilized for local community development projects.
Composting	A process by which organic solid wastes, such as leaves and grass clippings, are biologically decomposed under controlled conditions to produce a relatively stable soil-like material.
Community Park	According to the National Recreation and Parks Association (NRPA) standards, a community park offers a wide variety of recreational amenities and is usually 25 or more acres.
Condominium	A structure of two or more units, the interior spaces of which are individually owned; the balance of the property (both land and building) is owned in common by the owners of the individual units. (See "Townhouse").

Congestion Management Plan (CMP)

A mechanism employing growth management techniques, including traffic level of service requirements, standards for public transit, trip reduction programs involving transportation systems management and jobs/housing balance strategies, and capital improvement programming, for the purpose of controlling and/or reducing the cumulative regional traffic impacts of development. AB 1791, effective August 1, 1990, requires all cities, and counties that include urbanized areas, to adopt by December 1, 1991, and annually update a Congestion Management Plan.

Congregate Care

Apartment housing, usually for seniors, in a group setting that includes independent living and sleeping accommodations in conjunction with shared dining and recreational facilities.

Conservation

The management of natural resources to prevent waste, destruction or neglect.

Criteria Air Pollutants

Those pollutants for which the Federal and State Governments have established standards or criteria for outdoor concentrations.

Critical Care Facility

Facilities housing or serving many people, that are necessary in the event of an earthquake or flood, such as hospitals, fire, police, and emergency service facilities, utility "lifeline" facilities, such as water, electricity, and gas supply, sewage disposal, and communications and transportation facilities.

Critical Movement

Any of the conflicting through or turning movements at an intersection which determine the allocation of green signal time.

Cul-de-sac

A short street or alley with only a single means of ingress and egress at one end and with a large turnaround at its other end.

Decibel (dB)

A unit for describing the amplitude of sound, equal to twenty times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).

Deficient Intersection Fund

A trust fund established to implement necessary improvements to existing intersections which do not meet the Level of Service standards adopted in the Circulation and Infrastructure and Growth Management Elements. Such fund will be established from transportation fees mutually agreed upon by the GMA in which the deficiency exists.

Deficient Intersection List

A list of intersections that: one, do not meet the Traffic Level of Service Policy for reasons that are beyond the control of the City (e.g., ramp metering effects, traffic generated outside the city's jurisdiction, etc.); and two, are not brought into compliance with the LOS standard in the most current Seven-Year Capital Improvement Program. Additional intersections may be added by the City to the deficient intersection list only as a result of conditions which are beyond the control of the City.

Density	Dwelling units per acre; population, families per square mile/acre; this also includes floor to area ratios.
Developer	An individual who or business that prepares raw land for the construction of buildings or causes to be built physical building space for use primarily by others, and in which the preparation of the land or the creation of the building space is in itself a business and is not incidental to another business or activity.
Development	The physical extension and/or construction of urban land uses. Development activities include: subdivision of land; construction or alteration of structures, roads, utilities, and other facilities; installation of septic systems; grading; deposit of refuse, debris, or fill materials; and clearing of natural vegetative cover (with the exception of agricultural activities). Routine repair and maintenance activities are exempted.
Development Phasing Program	A program which establishes the requirement that building and grading permits shall be approved or issued in a manner that assures implementation of required transportation improvements. The City shall specify the order of improvements (number of dwelling units) based, at a minimum, on mitigation measures adopted in conjunction with the environmental documentation and other relevant factors.
Different Differential Settlement	The uneven settlement, where one part of a structure settles more or at a different rate than another part.
Differential Sediment	Nonuniform settlement, resulting in uneven lowering of different parts of a structure.
Emission Standard	The maximum amount of pollutant legally permitted to be discharged from a single source, either mobile or stationary.
Endangered Species	A species of animal or plant is considered to be endangered when its prospects for survival and reproduction are in immediate jeopardy from one or more causes.
Environmental Impact Report (EIR)	An information document used in the decision-making process which identifies the effects that a proposed project or activity will have on the natural and man-made environments. It must be prepared in accordance with the California Environmental Quality Act (CEQA) of 1970 and must address nine mandatory issues: project description, environmental setting, adverse environmental effects, short and long term use, irreversible environmental changes, growth inducement, alternatives to the project, and natural and human environmental resources.
Fair Market Rent	The rent, including utility allowances, determined by the United States Department of Housing and Urban Development for purposes of administering the Section 8 Existing Housing Program.

Family	One, two or more persons related by birth, marriage, or adoption (U.S. Bureau of the Census). Two, an individual or a group of persons living together who constitute a bona fide single-family housekeeping unit in a dwelling unit, not including a fraternity, sorority, club, or other group of persons occupying a hotel, lodging house or institution of any kind (California).
Fault	A fracture in the earth's crust forming a boundary between rock masses that have shifted.
Fault, Active	A fault that has moved recently and which is likely to move again. For planning purposes, an "active fault" is usually defined as one that shows movement within the last 11,000 years and can be expected to move within the next 100 years.
Fault, Blind Thrust	A low angle reverse fault (top block pushed over bottom block) whereby an upper portion of the earth's crust is displaced over and opposite to the underlying block, and does not reach the surface.
Fault, Inactive	A fault which shows no evidence of movement in recent geologic time and no potential for movement in the relatively near future.
Fault, Potentially Active	One, a fault that last moved within the Quaternary Period before the Holocene Epoch (the last 2,000,000 to 11,000 years); or two, a fault which, because it is judged to be capable of ground rupture or shaking, poses an unacceptable risk for a proposed structure.
Fault, Strike-Slip	A fault on which the movement is parallel to the direction or trend of the fault plane.
Fault Splay	One of a series of minor faults at the end of a major fault. One of the faults that comprise a fault zone.
Flood Insurance Rate Map (FIRM)	For each community, the official map on which the Federal Insurance Administration has delineated areas of special flood hazard and the risk premium zones applicable to that community.
Flood Plain	A lowland or relatively flat area adjoining inland or coastal waters that is subject to a one percent or greater chance of flooding in any given year (i.e., 100-year flood).
Floor to Area Ratio (FAR)	The gross floor area permitted on a site divided by the total net area of the site, expressed in decimals to one or two places. For example, on a site with 10,000 net. sq. ft. of land area, a Floor Area Ratio of 1.0 will allow a maximum of 10,000 gross sq. ft. of building floor area to be built. On the same site, an FAR of 1.5 would allow 15,000 sq. ft. of floor area; an FAR of 2.0 would allow 20,000 sq. ft.; and an FAR of 0.5 would allow only 5,000 sq. ft. Also commonly used in zoning, FARs typically are applied on a parcel-by-parcel basis as opposed to an average FAR for an entire land use or zoning district.

General Plan	A compendium of city or county policies regarding long-term development, in the form of maps and accompanying text. The General Plan is a legal document required of each local agency by the State of California Government Code Section 65301 and adopted by the City Council or Board of Supervisors. In California, the General Plan has seven mandatory elements (Circulation, Conservation, Housing, Land Use, Noise, Open Space, Safety and Seismic Safety) and may include any number of optional elements (such as Air Quality, Economic Development, Hazardous Waste, and Parks and Recreation).
Goal	The ultimate purpose of an effort stated in a way that is general in nature and immeasurable.
GPM	Gallons per minute.
Greening	The exhaustive systematic planting of trees and shrubs so that the benefits of greenery are felt throughout the City. These include cleaner air, shade, and aesthetics.
Groundwater	Subsurface or underground water resources.
Groundwater Recharge	The natural process of infiltration and percolation of rainwater from land areas or streams through permeable soils into water-holding rocks that provide underground storage ("aquifers").
Growth Management Areas (GMAs)	Subregions of the County established by the Regional Advisory Planning Committee to promote interjurisdictional coordination in addressing infrastructure concerns and in implementing needed improvements.
Growth Management Element	The Growth Management Element of the City's General Plan as required by the Revised Traffic Improvement and Growth Management Ordinance (Measure M).
Hard Site Environment	An environment with minimal noise attenuation features.
Hazardous Material	An injurious substance, including pesticides, herbicides, toxic metals and chemicals, liquified natural gas, explosives, volatile chemicals and nuclear fuels.
Historic	Important, significant, famous, or decisive in history.
Household	The census considers all persons living in a dwelling unit to be a household, whether or not they are related. Both a single person living in an apartment and a family living in a house are considered households.

Household Hazardous Waste

Household hazardous waste includes consumer products that meet the definition of hazardous waste in the California Health and Safety Code or satisfy the criteria found in the California Administrative Code (ignitable, poisonous, corrosive, reactive). Typical household hazardous waste materials include paints, motor oil, car batteries, caustic or acidic household products, pesticides, flammable polishes and cleaners, and aerosols.

Impervious Surface

Surface through which water cannot penetrate, such as roof, road, sidewalk, and paved parking lot. The amount of impervious surface increases with development and establishes the need for drainage facilities to carry the increased runoff.

Implementation

Actions, procedures, programs, or techniques that carry out policies.

In Situ

Literally means "in place." The phrase applies to artifacts found in their original, undisturbed location or position.

Indirect Sources

Sources, that by themselves, may not emit air contaminants, but indirectly cause the generation of air pollutants by attracting vehicle trips or consuming energy.

Infrastructure

The physical systems and services which support development and people, such as streets and highways, transit services, airports, water and sewer systems, and the like.

Inversion

A layer of warm, dry air acts as a lid, overlaying cool, moist marine air, which is heavier and does not rise.

ISO

A private insurance research group that periodically assesses the degree to which fire threatens geographic areas. Their rating is based on the type of vegetation or structures present, climate, and the availability of fire protection services.

**Jobs/Housing Balance;
Jobs/Housing Ratio**

The availability of affordable housing for employees. The jobs/housing ratio divides the number of jobs in an area by the number of employed residents. A ratio of 1.0 indicates a balance. A ratio greater than 1.0 indicates a net in-commute; less than 1.0 indicates a net out-commute.

**L_{dn} (Day-Night Average
Sound Level)**

The A-weighted average sound level for a given area (measured in decibels) during a 24-hour period with a 10 dB weighting applied to night-time sound levels. The L_{dn} is approximately numerically equal to the CNEL for most environmental settings.

L_{eq}

The energy equivalent level, defined as the average sound level on the basis of sound energy (or sound pressure squared). The L_{eq} is a "dosage" type measure and is the basis for the descriptors used in current standards, such as the 24-hour CNEL used by the State of California.

Landfill

A system of trash and garbage disposal in which waste is buried between layers of earth to build up low-lying land.

Landscaping	Planting - including trees, shrubs, and ground covers - suitably designed, selected, installed, and maintained as to enhance a site or roadway permanently.
Level of Service (LOS)	A relative measure of driver satisfaction with values ranging from A (free flow) to F (forced flow).
Liquefaction	Changing of soils from a solid state to a weaker state unable to support structures.
Local Agency Formation Commission (LAFCo)	A five- or seven-member commission within each county that reviews and evaluates all proposals for formation of special districts, incorporation of cities, annexation to special districts or cities, consolidation of districts, and merger of districts with cities. Each county's LAFCo is empowered to approve, disapprove, or conditionally approve such proposals. The LAFCo members generally include two county supervisors, two city council members, and one member representing the general public.
Local Transportation Authority (LTA)	As designated by the Orange County Board of Supervisors, the LTA shall mean the Orange County Transportation Authority (formerly Commission).
Major Development Areas	Those areas of the City which are designated in the City's General Plan land use map for the most intense urban development both in scale and mixture of land uses. They are intended to serve as anchors to the City's commercial corridors and to serve as regional centers of commerce and employment.
Mano and Metate	A mano is a hand-held, loaf shaped stone, used for grinding seeds, pigments and other plant materials on a metate. The metate is the portable stone slab on which grinding or milling occurs with the use of a mano.
Measurable Traffic	A traffic volume resulting in a one percent (1%) increase in any critical movement at an intersection.
Measure M	Refers to the Revised Traffic Improvement and Growth Management Ordinance adopted by Orange County voters on November 6, 1990. The Measure authorized the imposition of a half cent retail sales tax for a period of 20 years effective April 1, 1991. The sales tax increase will be allocated to local Orange County jurisdictions for use on local and regional transportation improvements and maintenance projects.
Mercalli Intensity Scale	A subjective measure of the observed effects (human reactions, structural damage, geologic effects) of an earthquake. Expressed in Roman numerals from I to XII.
Micron	One millionth of a meter.
Mitigation	The lessening or elimination of the impacts of an action through changes in the proposed action or the undertaking of additional measures.

Mixed Use	Properties on which various uses, such as office, commercial, institutional, and residential, are combined in a single building or on a single site in an integrated development project with significant functional interrelationships and a coherent physical design. A "single site" may include contiguous properties.
mg/l	Milligrams per liter, also parts per million.
Moderate-Income Household	A household with an annual income between the lower income eligibility limits and 120 percent of the area median family income adjusted by household size, usually as established by the U.S. Department of Housing and Urban Development (HUD) for the Section 8 housing program. (See "Area" and Low-Income Household")
National Flood Insurance Program	A federal program that authorizes the sale of federally subsidized flood insurance in communities where such flood insurance is not available privately.
National Historic Preservation Act	A 1966 federal law that established a National Register of Historic Places and the Advisory Council on Historic Preservation, and that authorized grants-in-aid for preserving historic properties.
National Register of Historic Places	The official list, established by the National Historic Preservation Act, of sites, districts, buildings, structures, and objects significant in the nation's history or whose artistic or architectural value is unique.
Neighborhood Park	According to NRPA standards, parks in this category should be at least 15 acres in size and centrally located in neighborhoods where the users live.
Nitrogen Oxide(s)	A reddish brown gas that is a byproduct of combustion and ozone formation processes. Often referred to as NOX, this gas gives smog its "dirty air" appearance.
Noise	Any sound that is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying. Noise, simply, is "unwanted sound."
Noise Attenuation	Reduction of the level of a noise source using a substance, material, or surface, such as earth berms and/or solid concreted walls.
Noise Contour	A line connecting points of equal noise level as measured on the same scale. Noise levels greater than the 60 L _{dn} contour (measured in dBA) require noise attenuation in residential development.
Noise Exposure Contours	Lines drawn about a noise source indicating constant energy levels of noise exposure. CNEL and Ldn are the metrics utilized herein to describe community exposure to noise.
Non-Attainment	The condition of not achieving a desired or required level of performance. Frequently used in reference to air quality.
Non-Attainment Area	An area in which state ambient air quality standards are not met.

Non-Conforming Use	A use that was valid when brought into existence, but by subsequent regulation becomes no longer conforming. "Non-conforming use" is a generic term and includes one, non-conforming structures (by virtue of size, type of construction, location on land, or proximity to other structures); two, non-conforming use of a conforming building; three, non-conforming use of a non-conforming building; and four, non-conforming use of land. Thus, any use lawfully existing on any piece of property that is inconsistent with a new or amended General Plan, and that in turn is a violation of a zoning ordinance amendment subsequently adopted in conformance with the General Plan, will be a non-conforming use. Typically, non-conforming uses are permitted to continue for a designated period of time, subject to certain restrictions.
Non-Criteria Pollutants	Toxic, or Non-Criteria, pollutants do not have established standards or criteria for outdoor concentrations.
Open Space	Land or water which is essentially unimproved.
Ordinance	A law or regulation set forth and adopted by a governmental authority, usually a city or county.
Over Payment on Housing	Over 30% of income is spent on housing.
Overlay	A land use designation on the Land use Map, or a zoning designation on a zoning map, that modifies the basic underlying designation in some specific manner.
Ozone	A tri-atomic form of oxygen (O ₃) created naturally in the upper atmosphere by a photochemical reaction with solar ultraviolet radiation. In the lower atmosphere, ozone is a recognized air pollutant that is not emitted directly into the environment, but is formed by complex chemical reactions between oxides of nitrogen and reactive organic compounds in the presence of sunlight, and becomes a major agent in the formation of smog.
Peak Hour/Peak Period	For any given roadway, a daily period during which traffic volume is highest, usually occurring in the morning and evening commute periods. Where "F" Levels of Service are encountered, the "peak hour" may stretch into a "peak period" of several hours' duration.
Performance Standards	Zoning regulations that permit uses based on a particular set of standards of operation rather than on particular type of use. Performance standards provide specific criteria limiting noise, air pollution, emissions, odors, vibration, dust, dirt, glare, heat, fire hazards, wastes, traffic impacts, and visual impact of a use.
Planned Unit Development (PUD)	A description of a proposed unified development, consisting at a minimum of a map and adopted ordinance setting forth the regulations governing, and the location and phasing of all proposed uses and improvements to be included in the development.

Planning and Research, Office of (OPR)	A governmental division of the State of California that has among its responsibilities the preparation of a set of guidelines for use by local jurisdictions in drafting General Plans.
Planning Commission	A body, usually having five or seven members, created by a city or county in compliance with California law (§65100) which requires the assignment of the planning functions of the city or county to a planning department, planning commission, hearing officers, and/or the legislative body itself, as deemed appropriate by the legislative body.
Point and Area Sources	Point sources have one or more emission source at a facility with an identifiable location. Area sources are widely distributed and produce many small emissions.
Policy	A specific statement which sets forth guidelines for future action.
Pollutant	Any introduced gas, liquid, or solid that makes a resource unfit for its normal or usual purpose.
Pollution	The presence of matter or energy whose nature, location, or quantity produces undesired environmental effects.
Pollution, Non-Point	Sources for pollution that are less definable and usually cover broad areas of land, such as agricultural land with fertilizers that are carried from the land by runoff, or automobiles.
Pollution, Point	In reference to water quality, a discrete source from which pollution is generated before it enters receiving waters, such as a sewer outfall, a smokestack, or an industrial waste pipe.
Pro Rata	Refers to the proportionate distribution of something to something else or to some group, such as the cost of infrastructure improvements associated with new development apportioned to the users of the infrastructure on the basis of projected use.
Public and Quasi-Public Facilities	Institutional, academic, governmental and community service uses, either publicly owned or operated by non-profit organizations.
Rare or Endangered Species	A species of animal or plant listed in: Sections 670.2 or 670.5, Title 14, California Administrative Code; or Title 50, Code of Federal Regulations, Section 17.11 or Section 17.2, pursuant to the Federal Endangered Species Act designating species are rare, threatened, or endangered.
Reclamation	The combined process of land treatment that minimizes water degradation, air pollution, damage to aquatic or wildlife habitat, flooding, erosion, and other adverse effects from surface mining operations, including: adverse surface effects incidental to underground mines, so that mined lands are reclaimed to a usable condition which is readily adaptable for alternate land uses and creates no danger to public health or safety.

Reclamation Plans	Plans required under the Surface Mining and Reclamation Act of 1975, which explains how surface mining lands will be reclaimed following the end of surface mining operations.
Recreation, Active	A type of recreation or activity that requires the use of organized play areas including, but not limited to, softball, baseball, football and soccer fields, tennis and basketball courts and various forms of children's play equipment.
Recreation, Passive	Type of recreation or activity that does not require the use of organized play areas.
Recycle	The process of extraction and reuse of materials from waste products.
Redevelop	To demolish existing buildings; or to increase the overall floor area existing on a property; or both; irrespective of whether a change occurs in land use.
Regional Housing Needs Plan	A quantification by a COG or by HCD of existing and projected housing need, by household income group, for all localities within a region.
Regional Mobility Plan (RMP)	A comprehensive regional planning document for the SCAG region which provides specific means for recapturing and retaining the transportation mobility levels of 1984.
Rezoning	An amendment to the map and/or text of a zoning ordinance to effect a change in the nature, density, or intensity of uses allowed in a zoning district and/or on a designated parcel or land area.
Richter Scale	A measure of the size or energy release of an earthquake at its source. The scale is logarithmic; the wave amplitude of each number on the scale is 10 times greater than that of the previous whole number.
Right-of-Way (ROW)	The entire width or property for the use of highways, flood and drainage works, overhead and underground utilities, or any related improvements.
Runoff	That portion of rain or snow that does not percolate into the ground and is discharged into streams instead.
Section 8 Rental Assistance Program	A federal (HUD) rent-subsidy program that is one of the main sources of federal housing assistance for low-income households. The program operates by providing "housing assistance payments" to owners, developers, and public housing agencies to make up the difference between the "Fair Market Rent" of a unit (set by HUD) and the household's contribution toward the rent, which is calculated at 30 percent of the household's adjusted gross monthly income (GMI). "Section 8" includes programs for new construction, existing housing, and substantial or moderate housing rehabilitation.
Setback	The horizontal distance between the property line and any structure.

Settlement

One, the drop in elevation of a ground surface caused by settling or compacting. Two, the gradual downward movement of an engineered structure due to compaction.

Shared Living

The occupancy of a dwelling unit by persons of more than one family in order to reduce housing expenses and provide social contact, mutual support, and assistance. shared living facilities serving six or fewer persons are permitted in all residential districts by §1566.3 of the California Health and Safety Code.

Single-Family Dwelling, Attached

A dwelling unit occupied or intended for occupancy by only one household that is structurally connected with at least one other such dwelling unit. (See "Townhouse")

Single-Family Dwelling- Detached

A dwelling unit occupied or intended for occupancy by only one household that is structurally independent from any other such dwelling unit or structure intended for residential or other use. (See "Family")

Single Room Occupancy (SRO)

A single room, typically 80-250 square feet, with a sink and closet, but which requires the occupant to share a communal bathroom, shower, and kitchen.

Southern California Association of Governments (SCAG)

An association comprised of local governments, counties, and cities within Orange, Riverside, San Bernardino, Los Angeles, Imperial and Ventura counties.

South Coast Air Quality Management District (SCAQMD)

The air pollution control district for the area which includes Orange, Los Angeles, Riverside and San Bernardino counties.

Surface Mining and Reclamation Act (SMARA)

Provides for the local regulation of mining operations and the designation, classification, and protection of areas with minerals of statewide or regional significance.

Solid Waste

All putrescible and nonputrescible solid, semisolid and liquid wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semisolid wastes, and other discarded solid and semisolid wastes.

Specific Plan

A Specific Plan is a tool to implement the General Plan which permits transfer of density requirements and deviations from General Plan policies for a particular site. However, the site as a whole must be consistent with the General Plan's density requirement and developed guidelines as well as all government codes. The advantage of the Specific Plan is that it permits a fully planned development to be implemented incorporating all types of land uses along with other amenities to meet the needs of potential residents or users. (State of California Government Code Section 65450 et seq.)

Sphere of Influence	The probable ultimate physical boundaries and service area of a local governmental agency.
State Water Project	A 444 mile long aqueduct that carries water from Sacramento-San Joaquin Delta to other areas of the state.
Storm Runoff	Surplus surface water generated by rainfall that does not seep into the earth but flows overland to flowing or stagnant bodies of water.
Street Furniture	Those features associated with a street that are intended to enhance that street's physical character and use by pedestrians, such as benches, trash receptacles, kiosks, lights, newspaper racks.
Subdivision	The division of a tract of land into defined lots, either improved or unimproved, which can be separately conveyed by sale or lease, and which can be altered or developed. "Subdivision" includes a condominium project as defined in Section 1350 of the California Civil Code and a community apartment project as defined in Section 11004 of the Business and Professions Code.
Subdivision Map Act	Division 2 (Sections 66410 et seq) of the California Government code, this act vests in local legislative bodies the regulation and control of the design and improvement of subdivisions, including the requirement for tentative and final maps. (See Subdivision)
Tourism	The business of providing services for persons traveling for pleasure, tourism contributes to the vitality of the community by providing revenue to local business. Tourism can be measured through changes in the transient occupancy tax, or restaurant sales.
Townhouse; Townhome	A one-family dwelling in a row of at least three such units in which each unit has its own front and rear access to the outside, no unit is located over another unit, and each unit is separated from any other unit by one or more common and fire-resistant walls, Townhouses usually have separate utilities; however, in some condominium situations, common areas are serviced utilities purchased by a homeowners association on behalf of all townhouse members of the association.
Traffic Model	A mathematical representation of traffic movement within an area or region based on observed relationships between the kind and intensity of development in specific areas. Many traffic models operate on the theory that trips are produced by persons living in residential areas and are attracted by various non-residential land uses.
Transit	Transit services include, but are not limited to, bus, light rail, rapid transit, commuter rail services and facilities, and carpools and ridesharing in private vehicles.
Transportation Demand Management (TDM)	The implementation of strategies which will encourage individuals to either change their mode of travel from a single-occupancy vehicle, eliminate the trip altogether, or commute at other than peak periods.

Transportation System Management (TSM)

Trees, Street

Trip

Trip Generation

Triple Net

Truck Route

Uniform Building Code (UBC)

Uniform Housing Code (UHC)

Urban Design

Use

Vehicle-Miles Travelled (VMT)

Strategies that are designed to improve traffic flow through modifications in the operation of existing facilities.

Trees strategically planted - usually in parkway strips, medians, or along streets - to enhance the visual quality of a street.

A one-way journey that proceeds from an origin to a destination via a single mode of transportation; the smallest unit of movement considered in transportation studies. Each trip has one "production end," (or origin - often from home, but not always), and one "attraction end," (destination).

The dynamics that account for people making trips in automobiles or by means of public transportation. Trip generation is the basis for estimating the level of use for a transportation system and the impact of additional development or transportation facilities on an existing, local transportation system. Trip generations of households are correlated with destinations that attract household members for specific purposes.

Traditionally refers to a completed building shell with all mechanical and electrical connected to it being rented for the amount involved, with all other expenses the responsibility of the tenant (i.e., utilities, taxes, insurance, interior maintenance and upkeep, and any other items related to the specific operation of the user's space).

A path of circulation required for all vehicles exceeding set weight or axle limits, a truck route follows major arterials through commercial or industrial areas and avoids sensitive areas.

A national, standard building code that sets forth minimum standards for construction.

State housing regulations governing the condition of habitable structures with regard to health and safety standards, and which provide for the conservation and rehabilitation of housing in accordance with the Uniform Building Code (UBC).

The attempt to give form, in terms of both beauty and function, to selected urban areas or to whole cities. Urban design is concerned with the location, mass, and design of various urban components and combines elements of urban planning, architecture, and landscape architecture.

The purpose for which a lot or structure is or may be leased, occupied, maintained, arranged, designed, intended, constructed, erected, moved, altered, and/or enlarged in accordance with the City or County zoning ordinance and General Plan land use designations.

A key measure of overall street and highway use. Reducing VMT is often a major objective in efforts to reduce vehicular congestion and achieve regional air quality goals.

Very Low-Income Household

A household with an annual income usually no greater than 50 percent of the area median family income adjusted by household size, as determined by a survey of incomes conducted by a city or a county, or in the absence of such a survey, based on the latest available eligibility limits established by the U.S. Department of Housing and Urban Development (HUD) for the Section 8 housing program.

Volume-to-Capacity Ratio

A measure of the operating capacity of a roadway or intersection, in terms of the number of vehicles passing through, divided by the number of vehicles that theoretically could pass through when the roadway or intersection is operating at its designed capacity. Abbreviated at " v/c ." At a v/c ratio of 1.0, the roadway or intersection is operating at capacity. If the ratio is less than 1.0, the traffic facility has additional capacity. Although ratios slightly greater than 1.0 are possible, it is more likely that the peak hour will elongate into a "peak period." (See "Peak Hour" and "Level of Service")

Watercourse

A permanent stream, intermittent stream, river, brook, creek, channel, or ditch for water, whether natural or man-made.

Zone, Traffic Analysis

In a mathematical traffic model the area to be studied is divided into zones, with each zone treated as producing and attracting trips. The production of trips by a zone is based on the number of trips to or from work or shopping, or other trips produced per dwelling unit.

Zoning

A legal device used by local jurisdictions to control development density and ensure that land uses are properly situated in relation to one another.

Zoning District

A designated section of a city or county for which prescribed land use requirements and building and development standards are uniform.

Zoning Map

Government Code §65851 permits a legislative body to divide a county, a city, or portions thereof, into zones of the number, shape, and area it deems best suited to carry out the purposes of the zoning ordinance. These zones are delineated on a map or maps, called the Zoning Map.



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